

PHILADELPHIA MEDICAL TIMES.

PHILADELPHIA, APRIL 4, 1885.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON TYPHOID FEVER, ESPECIALLY WITH REFERENCE TO PROG- NOSIS.

Delivered at the Hospital of the University of Pennsylvania

BY WILLIAM PEPPER, M.D., LL.D.,

Provost of, and Professor of the Theory and Practice of Medi-
cine in, the University of Pennsylvania.

Reported by WILLIAM H. MORRISON, M.D.

GENTLEMEN,—The patient before you to-day was admitted to the hospital seven days ago. We could obtain no definite history, but, as far as could be learned, the man had been sick for two weeks before admission, with delirium, continuous fever, hemorrhage from the bowels, and, for a day or two before he came in, with cough and rapid respirations. From this account it is probable that he was admitted at the beginning of the third week of an attack of typhoid fever complicated with pneumonia. The course of the case during the past week is indicated by the following notes:

January 3 (day of admission). There were no evidences of blood in the discharges from the bowel. The face was flushed, the tongue was dry and coated, and there were sordes on the teeth.

January 4. Had some delirium; belly moderately distended; several spots of typhoid-fever eruption were detected. There were several liquid stools, dark yellow in color. Shortly after admission the temperature was 103.4° . After this the temperature fell, and continued to diminish until two days ago.

January 6. More delirious, plucking at the bedclothes. Temperature not so high. Dulness over the right lower lobe of the lung posteriorly, and over the dull region the characteristic crepitant râles are heard. There is retention of urine, it being necessary to use the catheter. Temperature between 101° and 102° .

January 7. Still further fall of temperature. The dulness over the posterior portion of the chest is extending upward, having now reached the third rib. The restlessness, delirium, and plucking at the bedclothing have continued.

These symptoms continued through the 8th, but during the night of the 8th the temperature began to rise, and yesterday morning (the 9th) it stood at 101° . Last night it was 102.5° , and it is the same this morning: so that there has evidently been a renewal of the fever.

The treatment has been one of active stimulation. He has taken as much milk as we could get him to use, giving it in comparatively small quantities repeated every hour or hour and a half, with a small quantity of whiskey, so that he has averaged one ounce of whiskey every two hours since admission. In addition he has taken turpentine. I would mention that, since admission, the bowels have been open only once each day, with the exception of one day during which there were four stools, and again three days ago, when twenty-four hours passed without any stool. He has borne the turpentine mixture very well. For the excessive restlessness which he has presented he was last night given nine grains of musk.

We find our patient, then, this morning, at the beginning of the fourth week of the attack, delirious, with from time to time rolling of the head, with very little intelligence, with the mouth partly open and the teeth and lips coated with sordes. These sordes are nothing but the foul secretions of the mouth dried by the passage of the air over them. When a patient with typhoid fever has no obstruction of the nostrils, and retains sufficient intelligence to breathe through them, and keeps this up during sleep, sordes do not form so much; but when the patient sinks into a typhoid state, with dulness of mind, breathing is carried on through the mouth, and the secretions are rapidly dried and form crusts. This is largely owing to the fact that, as a result of the high temperature and the perverted state of the secretions, all the buccal secretions are thick and viscid and readily dry with the formation of crusts.

When told to protrude the tongue, he does so better than he did a few days ago. It is coated with a grayish-brown fur. As I have already stated, the temperature this morning is 102.5° . The pulse is very small, compressible, and 140 per minute. The temperature is well kept up; the hands and feet are warm. For the last day or two the distention of the abdomen has

been very great, and in order to remove this tympanitic condition turpentine stupes have been used every couple of hours during the night, and this morning the distention is somewhat reduced.

I shall not disturb him to demonstrate the signs of pneumonia. The dulness, however, does not extend anteriorly, and over the front of both lungs auscultation reveals the presence of vesicular murmur mixed with coarse râles, chiefly bronchial, showing that there is considerable bronchial irritation of both lungs, with consolidation of the posterior portion of the right lung.

This case illustrates the difficulties attending the treatment of typhoid fever in hospital practice. This man, having received no medical care, no proper nursing, and improperly fed, was admitted to the hospital at the end of the second week, by which time his vital powers had been exhausted and his digestion totally broken down, with diarrhoea of from four to six loose stools daily which had been allowed to continue; and, worse than all, with a pneumonia which very likely developed on account of his want of treatment. The late period at which he comes under treatment, the gravity of the nervous and abdominal symptoms, and the grave complication of pneumonia which he presents, make the prognosis unfavorable, and I expect this man to die. At the same time, the decrease in temperature which has taken place during the past four or five days until night before last, the subsidence of the diarrhoea, and the absence of vomiting, are favorable symptoms, and hold out a hope of his pulling through. The great danger is that the weakness of the heart, which has resulted from want of proper care and proper sustenance, is such that it will be unable to stand the strain, and that we shall have symptoms of heart-failure, increasing pulmonary engorgement, disturbed capillary circulation, deepening stupor, and death. Forty-eight hours will settle the question.

The complications of typhoid fever may be divided into the nervous, the abdominal, and the pulmonary. It is curious how different cases will present these complications in different degrees of severity. Scarcely ever will they be found equally well marked. As a rule, when the nervous symptoms are marked the abdominal are not. The combination of marked

nervous and pulmonary symptoms is more common. In some of the worst cases of the abdominal complications of typhoid fever, such as copious and intractable diarrhoea, hemorrhage, and great distention of the abdomen, the brain is perfectly clear. In the present case the abdominal symptoms seem to have been marked in the early stage. The man had more or less diarrhoea; but this may have been due to want of proper care, for as soon as he came under proper treatment the diarrhoea ceased, and now he has but one stool a day.

We estimate the gravity of an attack of typhoid fever, in the first place, by the range of temperature. If the temperature is not above 104° it is not an unfavorable sign. If it reaches 105° but does not remain at that point, it is not serious. Anything above 105° we term hyperpyrexia, and this is a dangerous sign, particularly if the temperature remain almost continuously, day and night, above 105° . When, however, as in the present case, the temperature ranges between 101° and 104° , and does not exceed this latter point, it does not become a source of much added danger. In children and in sensitive women a temperature of 105° is often reached and maintained for some time without serious danger. It is important to recognize this fact, for it will save the necessity of resorting to powerful measures to reduce the temperature. Far too much importance—or, rather, far too exclusive importance—is nowadays attached to the study of the temperature in febrile diseases. It is important, and should be carefully watched, for it aids both in prognosis and in treatment; but the ease with which thermometric observations are made, their accuracy as contrasted with the manner in which many other symptoms have to be studied, and the certainty which they seem to give in studying the course of the case, are apt to divert our attention to too high a degree from the study of the pulse, the nervous system, and the digestive organs; whereas, as a matter of fact, the temperature in many cases is less important than information drawn from the other points to which I have referred. Particularly I am sure that we allow our treatment to be governed too exclusively by this question of temperature, and are too prone to resort to powerful antipyretics, which sometimes are depressing, irritating, and disturbing.

Many cases of typhoid fever do perfectly well without severe antipyretic treatment, even though the temperature be high. It is only when the nervous symptoms and the condition of the heart indicate that the high temperature, in the absence of other complications which would account for the symptoms, is acting as a disturbing element on the brain and the heart that it calls for active treatment. Then we should resort to any plan of antipyretic treatment which is efficient, as large doses of quinine or the external use of water. So long as the high temperature is maintained without manifest injury being inflicted on the brain or the heart, it is better to avoid powerful antipyretic measures and to allow the case to run its normal course. This is particularly applicable where there are complications which are of themselves sufficient to maintain the high temperature and account for a certain amount of nervous irritation. Under such circumstances these powerful remedies often do more harm than good.

Among the indications to be considered in the prognosis I have mentioned the heart and the pulse. This is exceedingly important. I think that the study of the sounds of the heart—of the strength of the muscular or first sounds of the heart, the strength of the impulse, the way in which the artery fills at the wrist, how it resists pressure, the quality of the beat, the frequency of it, and its regularity—is of the first importance in the prognosis of typhoid fever and as a guide to treatment, particularly in regard to the important question of the administration of stimulants. You have a patient with a dry, brown tongue and marked nervous symptoms. It may be difficult to decide whether he needs remedies of a sedative character, and perhaps counter-irritation, to quiet the nervous restlessness and draw the excitability from the nerve-centres, or whether he requires stimulation to raise the tone of the circulation and cause a healthier tone of action in the nerve-centres and thus bring about a secondary quieting or sedative effect. The best test of this is the action of the pulse and the influence of stimulants on the pulse. In a case where the pulse is from 120 to 140 per minute, very compressible, so that it collapses under the slightest pressure, with an exceedingly weak first sound, so that it assumes almost a valvular character, stim-

ulants may be given freely; and under their use, as a rule, the temperature will fall, dryness of the mouth will lessen, and the nervous symptoms will improve. These results indicate that the stimulants are doing good, and encourage us to continue or to increase them.

This man needs free stimulation, and if he can stand one ounce of whiskey every hour we will not hesitate to give it to him through the next two or three days, to tide him over this crisis, for unless the heart is kept up I fear that he will die in the way which I have mentioned.

Symptoms referable to the abdominal organs afford some help in prognosis, but they are not as reliable as the evidence presented by the temperature and the circulation. The amount of diarrhoea which the man has had has not been very serious, but yet I think that diarrhoea in typhoid fever is not a good thing. I do not regard it as an evidence of the efforts of nature to eliminate the poison from the system. On the contrary, it is to me an evidence of active disease in the intestinal canal, of imperfect digestion of the food taken, of the presence in the intestines of putrid, irritating secretions. It is undoubtedly better that such irritating secretions should be discharged than that they should be locked up in the bowel to undergo putrefaction and probably furnish fresh poison to be absorbed. If, however, by regulated diet, by the avoidance of irritating remedies from the earliest moment that typhoid fever is suspected, and by the use of remedies suitable for the disease of the glands which is certainly going to develop, we can render the matters which enter the intestine so easily digestible and assimilable that they will not putrefy, we may keep the secretions in a less putrid state, and thus diminish the diarrhoea. I think that the early treatment of a case of typhoid fever has more to do with the state of the bowel than anything else. It frequently happens that when a patient presents himself to a physician in the early stage of typhoid fever he is given a laxative, with the idea that he is suffering from a slight catarrhal attack from irritating matter. As you know, one of the diagnostic signs in the early stage of typhoid fever is the remarkable effect from a laxative. It will produce several loose stools; and when the physician sees this his attention is directed to the possibility of the case being one of typhoid fever. But

I do not know that much is gained by this therapeutic test. Suppose the case were only one of catarrh of the intestine, allowing the bowels to remain quiet would prolong the case only twelve or twenty-four hours, the irritating matters would be discharged, and the patient would have taken nothing to increase the trouble; but if the case is going to be one of typhoid fever, the patient has on the brink of ulceration a number of glands throughout the intestinal canal, and then I think that even the mildest laxative is undesirable and may be directly harmful. I have no doubt that many cases of typhoid fever have this intestinal element, and are made serious by injudicious management during the first forty-eight hours. What is wanted is absolute rest, absolute diet, and absolute avoidance of direct medication until the disease indicates what it probably is going to be. When diarrhoea is present, it is to be checked, not by the use of opiates to lock up the bowel, but by reducing the food taken until we obtain that which can be absorbed. The ordinary principles of alimentation are as true in typhoid fever as they are in health. It is not that which is put in the stomach that does good, but it is that which the stomach is able to absorb and appropriate and put in such a condition that when it enters the intestinal canal it shall be readily absorbed. It is useless to pour three ounces of milk one hour and three ounces of beef-tea the next hour into a patient who is not really absorbing more than half an ounce in the twenty-four hours. The more food is given under these circumstances, the more is digestion deranged. Fermentation takes place, and the abdomen is greatly distended from the accumulation of gas. I should try to check the diarrhoea by reducing the diet to a point where the patient is able to assimilate it, by the use of remedies directed to heal the irritated mucous membrane, and by the use of opiates only in small quantities. Opiates to check the diarrhoea of typhoid fever usually do as much if not more harm than good. A continuance of diarrhoea is often well borne, particularly if the stools come from the lower bowel as a result of the discharge from the ulcers, and do not come from want of absorption of the nourishment which is taken. If they are not associated with great tympanitic distention of the belly, or with marked failure of the pulse, or with severe nervous

symptoms, a certain number of loose stools may be borne without particular harm. When, however, there is continued diarrhoea, with frequent copious stools, particularly if discharged unconsciously, with distention of the abdomen, showing that the intestinal muscles and the muscles of the abdominal walls are paralyzed, the prognosis is extremely bad, for such diarrhoea is apt to prove uncontrollable.

Another symptom referable to the abdominal condition of the intestines is hemorrhage. Hemorrhage from the bowel often occurs as a hemorrhoidal discharge and means nothing serious. Slight hemorrhages occurring early are not of evil omen, and hemorrhage occurring at the time that the sloughs are cast off may not be serious; but where the bleeding is frequently repeated and the amount lost is large, and where it is associated with diarrhoea and great tympanitic distention of the abdomen, it indicates such prostration of vitality and such dyscrasia of the blood as to render the prognosis very unfavorable.

The tympanites which this man has had amounted to a serious trouble; and sometimes the tympanitic distention goes so far as to constitute an important element in the prognosis. It indicates, in the first place, a paralytic state of the muscles of the abdominal walls; and in the second place it indicates fermentation of the ingesta and deficient digestion and absorption. This distention, by its pressure upward, causes marked interference with respiration and adds greatly to the effects of any pulmonary trouble which may co-exist. Distention of the abdomen in typhoid fever should be studied in this way so as to be traced to its proper cause. If it is the result of muscular debility, it will be helped by stimulating applications. Strychnia is particularly useful in these cases. If it is the result of fermentation of the ingesta, it may often be diminished by peptonizing the food and by the internal use of carbolic acid and creasote, which will lessen fermentation. Where the accumulation of gases interferes with the action of the diaphragm, an attempt should be made to draw off the gases by a rectal tube. This operation usually has to be repeated, and I have even been forced to puncture the abdominal wall with a hypodermic needle to draw the gases from the intestine; and I have

seen patients recover where I have had to do this on several successive days on account of interference with respiration. As a rule, however, when it comes to this point death follows.

I shall add to the large amount of alcohol which this man is taking one-fortieth of a grain of strychnia four times a day. This will be dissolved in weak alcohol and water and thrown under the skin of the abdomen.

The pulmonary symptoms of typhoid fever afford very important elements in prognosis. We should never let a day pass without examining the lungs and heart of our typhoid-fever patients. A certain amount of bronchial irritation is an almost constant element in typhoid fever. Usually by the end of the second or during the third week we find hypostatic congestion, with a little impairment of resonance, weak vesicular murmur, and crepitant râles on inspiration over the lower lobes behind. This we consider an almost inevitable feature of the disease; but when, instead of merely a hypostatic congestion, the disease, as here, goes on to consolidation, and, as you observe, is unilateral, not symmetrical as is hypostatic congestion,—not limited to the lower lobes, but involving first the lower lobe and then extending to the upper lobe, with bronchial respiration and with coarse, crackling râles,—we know that it is not merely an exaggerated degree of that congestion incident to the disease, but that it is a real complication, a croupous pneumonia.

As I have said on another occasion, the typhoid state and pneumonia present different relations to each other. Pneumonia may be present and run into the typhoid state. This really is typhoid pneumonia. Again, there may be typhoid fever and pneumonia occurring as a complication; but this has nothing to do with typhoid pneumonia. It is typhoid fever. The pneumonia is a purely intercurrent, accidental phenomenon, a true complication,—and it is a complication of great gravity. Sometimes it takes the form of catarrhal pneumonia; and this is even worse than croupous pneumonia. It is apt to be associated with extensive collapse of the lung. The areas affected multiply and spread, and exudation and softening occur: so that, on the whole, catarrhal pneumonia complicating typhoid fever is

even more unfavorable than croupous pneumonia, except the extent of the latter be very great; but either of them is a grave complication and adds largely to the mortality. If it comes upon a patient with bad typhoid fever, already reduced by other symptoms, as diarrhoea, and who presents evidences of nervous exhaustion and failure of cardiac power, the chances are that the patient will die. The prognosis is rendered graver by the existence of the serious pulmonary complication, and this is an indication for vigorous stimulation. The amount of alcohol should be increased, as much concentrated nourishment as the digestive organs will stand should be given, and carbonate of ammonia and turpentine administered internally. In this case turpentine in the dose of ten drops in emulsion every three hours has been given for the tympanitic distention of the abdomen, and has been found to act satisfactorily. It will therefore be continued.

Lastly, this case is instructive in regard to the nervous symptoms, which are always valuable in prognosis and treatment. We expect a certain amount of nervous disturbance in these cases, and rarely is it wanting. Occasionally it is absent, and this year particularly I have seen an unusually large number of cases of typhoid fever which were characteristic in other respects, but presented no nervous symptoms whatever. Another curious fact is that in many cases during the past year the abdominal symptoms were wanting, and many cases presented constipation, so that it was necessary to use an enema every third or fourth day. In some cases I gave once a week a grain of calomel in one-tenth of a grain doses, followed by an enema. As a rule, however, we expect some nervous disturbance. As long as it is only a little night delirium it is not an evidence of much danger. This is, of course, more marked in those of a nervous temperament. When it deepens into marked hebétude with tendency to stupor, or, still more, when it takes the form of constant, restless delirium, with quick, suspicious glances of the eye alternating with dulness, with constant twitching even when the patient seems to be asleep, with plucking at the bedclothes, it is a symptom of gravity. Other grave nervous symptoms are struggling constantly to rise and slipping down in the bed as from muscular

debility. I need not say that profound stupor and convulsions are very serious symptoms. This man has presented twitching of the tendons, picking at the bed-clothes, and almost constant delirium in a marked degree ever since he has been under observation. As a rule, the nervous symptoms of typhoid fever are evidences of debility and call for a stimulating plan of treatment. When in the early stage of the disease they are present, with marked arterial excitement, flushing of the face and injection of the eye, they are indications for counter-irritation and a sedative plan of treatment. In the present case the nervous symptoms have been such as to call for stimulation, and as he has been stimulated the nervous symptoms have diminished. Here, then, is an important guide for treatment. If under the use of stimulants the nervous symptoms diminish and sleep become more natural, we know that the stimulants are doing good.

This patient is bearing stimulation very well. The only question is whether or not we can stimulate him enough to tide him over the next twenty-four hours. He will be given eighteen to twenty-four ounces of whiskey in the twenty-four hours, ten drops of turpentine every three hours, and one-fortieth of a grain of strychnia hypodermically four times a day, and if he is restless at night the musk shall be repeated.

[This case was again presented to the class two weeks later. An abscess of the parotid had formed and opened, but the patient was greatly improved, and had been free from fever for several days. At this time the quantity of stimulus, which had been reduced, was still further reduced, so that he received half an ounce every two hours. He was also ordered a mixture containing one-fortieth of a grain of strychnia, two grains of quinia, five drops of dilute hydrochloric acid, ten minims of compound tincture of cardamom, and sufficient water to make one drachm. This was to be taken four times a day, and constituted the only treatment. The patient made a rapid recovery. REP.]

IODOFORM-POISONING.—A case of fatal poisoning after colporrhaphy, from the free use of iodoform in the vagina after the operation, is reported by Dr. E. Schwatz in the *Berliner Medicinische Wochenschrift*, No. 7, in which there is also a valuable paper on iodoform-poisoning by Prof. Harnack.

ORIGINAL COMMUNICATIONS.

REPORT ON OPHTHALMOLOGY.

BY ALBERT G. HEYL, M.D.,

Ophthalmic Surgeon to the Episcopal Hospital.

COCAINE.

DR. H. KNAPP contributes a paper on "Cocaine" which contains a summary of what has been written about the drug, and also his own experience from its use in ophthalmology. "Cocaine is of the greatest benefit in cataract operations." In needle operations there is less liability to prolapse of vitreous, incarceration of the iris or capsule in the corneal wound, owing to the diminished ocular tension induced by the drug. So also in cataract-extraction. Knapp has not as yet applied the cocaine to the wound or injected it into the anterior chamber, a procedure which he does not advise. A marked diminution of the eye-tension is noted after the use of cocaine: the cornea will wrinkle and sink in after the expulsion of the lens. As a consequence of the decreased tension, the iris rarely prolapses spontaneously. In twenty-four extractions under cocaine there was only one case of corneal suppurative, possibly due to other causes. Knapp has made five iridectomies in glaucoma under cocaine. In one case, although a good-sized opening had been made with the lance, the aqueous escaped only after introduction of the forceps,—showing the greatly diminished tension. In another case the pupil was so widely dilated that it was with difficulty seized with the forceps. Knapp warns against the danger of the patient suddenly rolling the eye when the iris is excised, as the cocaine does not seem to dull the sensitiveness of the iris. Eserine is the proper corrective of the cocaine mydriasis: it induces full pupillary contraction, even in spite of subsequent instillations of cocaine; at the same time the anæsthesia is not diminished. In an enucleation cocaine was injected in the neighborhood of the optic-nerve entrance in the sclerotic. There was little or no pain in the operation except that resulting from the division of the muscles. As a rule, cocaine should be applied by instillation. In special cases subcutaneous injections may be used. Caution should be exercised: injections of five or six minims into the lids have induced unpleasant general symptoms. The

combined effect of atropine and cocaine in iritis is useful. The pain is relieved and the course of the disease shortened.—*Arch. of Ophthal.*, December, 1884.

[A glance at the already extensive literature of cocaine shows that the drug is being used with a freedom that indicates a general belief in its incapability of doing harm as a local application, at least in the solutions ordinarily used. It is, however, probable that any agent which acts like cocaine is capable of mischief when indiscriminately used. The primary effect of the drug, when applied to the conjunctiva, seems to be upon the fifth nerve, possibly upon its epithelial endings, if the term may be used. The result is that their important function for the time being is abolished. One may study in this connection the cases of conjunctival xerosis, also those of keratitis, due to injury of the fifth nerve. Eberth has advanced the idea that the latter is really a mycotic affection, the withdrawal of the influence of the fifth nerve favoring the development of bacteria in the cornea. There is strong ground for believing this to be true. It is a pertinent question whether cocaine may not induce the same condition. There is, so far as the writer has seen, no recorded instance of its damaging a healthy eye: perhaps the effect lasts too short a time to induce disease. It is, however, conceivable that an eye may be on the verge of disease and be precipitated into ruin by the cocaine. Further evidence is already making its appearance showing that it is an undesirable application in cataract-extraction. Knapp has had one case of corneal suppuration in twenty-four extractions, and this he thinks was possibly due to other causes. Keyser (*Therapeutic Gazette*, January 15, 1885) collects four cases of panophthalmitis after cocaine. The first case was a perfectly smooth operation for senile cataract. In the second case the cataract was traumatic, complicated with an anterior synechia which was causing sympathetic irritation. In the third case, operated on by Dr. Strawbridge, the extraction was performed without complication. The fourth case was one of occluded pupil, for which an iridectomy was made by Dr. Koser. In all of these a panophthalmitis developed ten or twelve hours after the operation.*

* Dr. Strawbridge informs me that in his case the inflammation commenced twenty-four hours after the operation. H.

All this is calculated to chill the enthusiasm over the use of cocaine, at least in all operations requiring an extensive corneal incision. To what degree the mere removal of a lens by a typical extraction, or the tearing asunder of synechiæ, or the mere corneal section, may contribute to the unpleasant result cannot as yet be told. The essential, however, may be assumed to be the anæsthesia of the fifth. If some means could be found to overcome this, then possibly these bad results might be obviated. Eserine does not appear to antagonize the anæsthesia; possibly aconitia might do it. Aconitia certainly irritates in some way the fifth nerve, as the profuse lachrymation following the use of the oleate shows. H.]

XEROSIS CONJUNCTIVÆ.

Dr. Richard Schulz reports the following case. The patient was a badly-nourished child, æt. 20 weeks. There were no lung-symptoms, no vomiting or spasms. Tendency to diarrhœa, very frequent pulse, temperature 103.3°, were noted. The eyes were closed, and had been so for eight days. There was a large ulcer of the left cornea; the right cornea was very much clouded. The conjunctiva of each eye was of a pale rose color, dry, with a white, fat-like deposit upon it. Dr. Ferge, an oculist who saw the case in consultation, pronounced the case one of conjunctival xerosis and gave a fatal prognosis. The case gradually grew worse. Catarrhal pneumonia set in, and the child died on the twentieth day of the disease. Examination of the conjunctivæ before death showed the epithelial cells covered with micro-organisms, as described by Leber. No mention is made of fatty changes in the epithelial cells. In the post-mortem examination bacilli similar to those noted in the conjunctivæ during life were observed in the bronchi and upon the epithelium covering the papillæ of the kidneys. The liver was fatty.—*Graefe's Arch.*, 1884.

[This case, so far as it goes, is confirmatory of the interesting and valuable researches of Prof. Leber on this disease. An account of these researches, together with a summary of what is known about the disease, will be found in an article in the "Transactions of the State Society of Pennsylvania," entitled "Epithelial Mycosis." The disease is of interest to those

engaged in general practice, as Dr. Schulz's case shows. It is probable that the disease occurs in this country oftener than is generally supposed, its severe general symptoms and fatal character leading to faulty diagnosis. It should be remembered that the pneumonia in the above case was not an accidental complication, but is part of the disease. The name of conjunctival xerosis is faulty, as the epithelium of various portions of the body is affected. The disease is better described as "A Form of Epithelial Mycosis." H.]

AMBLYOPIA FROM MENSTRUAL HEMORRHAGE IN TYPHOID FEVER.

Dr. C. Williams reports the following case. Mrs. L., æt. 22, was attacked with typhoid fever: on the eighth day of the disease her menses appeared. In quantity the discharge was less than usual, although considerable. At the end of the epoch and in daylight, surrounding objects suddenly appeared brilliantly illuminated for a few moments, when it seemed to the patient as if the darkness of night had suddenly fallen. The attendants found the patient much alarmed; pupils widely dilated and immovable, and unable to see the motion of the hand. When Dr. Williams saw her, probably a day or two later, the pupils had regained their normal size and reaction, and fingers could be counted at two feet. Optic disks were very white, retinal arteries thread-like, veins in comparison large, though smaller than normal calibre. There was a dim gray reflex from the retina and a want of perfect transparency, such as Dr. Williams had observed in retinæ at the moment of death; no hemorrhages. The case gradually improved, and in two months normal vision had almost recurred. Dr. Williams calls attention to the fact that, while amblyopia from gastric or intestinal and also from uterine hemorrhage is known to occur, it is exceedingly rare to find it as a sequel of the ordinary menstrual flow, even when grave general disease exists. In this case there was neither gastric nor intestinal hemorrhage. He supposes that an excitation of the pelvic or abdominal ganglia, conveyed through the ciliary ganglia, may have induced a tonic contraction of the retinal arteries and a contraction or dilatation of the pupil.—*Arch. of Ophthal.*, December, 1884.

[This case is one of great interest. The reviewer thinks that this case, as well as

cases of amblyopia from gastric and intestinal hemorrhage, is to be looked upon as the result of sudden and abnormal decrease in the general arterial tension. The arterial vessels within the abdomen regulate the general blood-tension to a very great extent. If hemorrhage occur from any arterial area within the abdomen, then we may expect a decrease in the general tension. In many instances, doubtless, the blood-vessel system instantly antagonizes the abnormal tension, and no harm results. The ordinary menstrual flow in a healthy person is not apt to induce disturbance of sight. In Dr. Williams's case, however, there was another factor: it was a case of typhoid fever, and, we may assume, accompanied by the usual intestinal lesion. It is probable, therefore, that the superior mesenteric artery was more or less involved, and that the condition of the arterial circulation was such that the menstrual flux was sufficient so to decrease the general arterial tension that the retinal function was abolished. The reviewer thinks the cases of loss of sight after uterine hemorrhage are to be explained on the same general principle. H.]

HOMONYMOUS SUPERIOR HEMIANOPIA.

This name is applied to a defect of sight characterized by the absence of the *upper* halves of each visual field. Dr. Wiethe reports the following case. A laborer, æt. 54, applied for treatment on account of sudden loss of sight which had occurred the previous day. Two years before, he had had an attack of acute articular rheumatism, followed by shortness of breath. Four months before the loss of sight, he fell from a ladder, striking the occiput; was unconscious for several hours, and bled from mouth, nose, and ears. He recovered consciousness experiencing violent headache. There was no vomiting or paralysis. His memory and will-power became impaired, and there were frequent attacks of headache. Perhaps two months after the fall there was a stroke of apoplexy, with left hemiplegia, but in a few weeks he was able to work again. Several weeks later, while raking hay, the eyesight suddenly became impaired. It gradually grew worse, and at the end of an hour and a half was entirely abolished. The day following, examination revealed the following: pupils equally and widely dilated, not responding to light; eyeballs immovable; visual

lines nearly parallel; lids widely separated; media clear; no abnormality of the retina or optic nerves; paresis of the left facial nerve-twigs supplying the lips, nostril, and eyelid; deviation of tongue to the right; sense of smell, as tested by turpentine, absent; no loss of sensibility in the skin or power in the extremities; gait steady; cardiac dulness increased—the sounds abnormally loud; pulse 60, strong, jerking, incompressible; mind clear, but intense headache. Under treatment, eyesight improved sufficiently for him to walk about. The pupils contracted to medium size. The eyeballs became movable in all directions except upward. Examination of the fields showed the upper halves to be defective: the boundary-line of the right coincided with the horizontal meridian, while in the left it was eight or twelve degrees above it. In the latter a narrow zone of amblyopia seemed to exist in the inferior half of the field.

Nine and a half months after the attack of blindness, death occurred from hernia. Post-mortem revealed atheroma of the arteries at the base of the brain, old hemorrhagic foci in the temporal lobe, lenticular nucleus, medullary substance of the frontal lobe, cortex of the sulcus olfactorius, of the parietal lobe, and left optic thalamus; chronic pachymeningitis; eccentric hypertrophy of the left ventricle of the heart.—*Arch. of Ophthalmology*, December, 1884.

[Dr. Wiethe adds a careful study as to the possible locality of the lesion in this case. It is based mainly on the supposition that there must have been pressure from a clot upon one or more areas of brain-tissue. Granted that the brain is an organ capable of being divided into areas, each of which is necessary for the performance of a given function, the argument is that if in certain cases of intracranial disease a given function is abolished, we have to do with pressure on the corresponding spot. This method of reasoning has been recently illustrated in Hughes Bennett's case, in which a tumor was localized and removed by operation. There is one important thing, however, to be remembered. The brain is not a dead organ composed of a certain number of tissue-blocks, any one of which may be removed, or pressed upon, or destroyed, without interfering with the other. It is a living organ, and when a given function is abolished we may not immediately jump to the conclusion that the starting-point of the

trouble is at the locality in which the function is lost. There are other factors to be considered besides the mere mechanical pressure. In this case of Wiethe's we have to do with a pronounced degeneration of the vessel-coats. Doubtless there was an abnormal state of the intracranial circulation. It is not necessary to bring in the pressure of a clot in order to explain the case. The blood might easily have failed to circulate in certain areas without a clot having formed at all. The function of the retina is often abolished in this way, and by analogy we may suppose the intracranial functions may also thus be lost. H.]

OPHTHALMA-LEUCOSCOPE.

This instrument, based on the leucoscope of Helmholtz, has been devised by Dr. Arthur König for the detection of color-blindness. The instrument consists of a tube containing in the anterior part an apparatus for polarizing light. The polarized rays then pass through a Nicol prism, and are examined by a telescopic system of lenses in the posterior part of the tube. If white light be allowed to fall into the instrument it will appear to the observer looking through the telescope to be broken up into complementary colors, the intensity of which can be varied,—e.g., by rotating the Nicol prism. By a person with normal color-sense the distinction between the complementary colors will always be recognized, but for a color-blind observer the apparatus may be so arranged as to cause the complementary colors to appear exactly alike. Experience seems to show that the form of color-blindness may be known at once from the position of the index of the instrument, which shows the rotation of the prism necessary to produce apparent similarity of the colors.—*Bericht. Ophth. Gesellschaft*, 1884.

EXCISION OF THE RETROTARSAL FOLD IN TRACHOMA.

Schneller reports encouraging results in trachoma from the excision of the retrotarsal fold. This treatment originated with Heissrath, who limited it to cases of trachomatous pannus. Schneller observed that not only the pannus was favorably influenced by the operation, but also that the trachomatous condition of the palpebral conjunctiva disappeared. He therefore employs the operation in cases of trachoma without corneal complications. The operation is as follows. The eyelid is everted,

the ball fixed and drawn downward if the upper fold or upward if the lower is to be excised. The retrotarsal fold is grasped by a forceps adapted for the purpose (the blades are fenestrated and shaped like the Desmarres forceps, and when applied will grasp the whole length of the retrotarsal fold). It can then be cut off with blunt-pointed scissors. The breadth of the piece excised varies from three to eight millimetres, according to the swelling. The bleeding is stilled, the conjunctival surface washed with sublimate solution, and wound dusted with iodoform. This is repeated daily. In eight days the wound is healed, with linear cicatrix. The results are: 1. The duration of the clinical treatment is shortened from six to eight weeks to about twenty-eight days. 2. The linear cicatrix exercises no evil influence, so far as can yet be observed. 3. Pre-existing corneal complications heal with great rapidity. This seems to progress with the healing of the wound. If the latter be delayed, the corneal complications disappear more slowly. In favorable cases, in ten to fourteen days the cornea is smooth, pannus-vessel scarcely perceptible. If wound-granulations occur, then the corneal complications become worse. 4. The vision is considerably improved. 5. Recurrence of the disease has not been noticed.—*Graefe's Archiv*, 1884.

NERVOUS SHOCK AS A CAUSE OF PERNICIOUS ANÆMIA.

*Read before the Philadelphia County Medical Society,
February 25, 1885.*

BY ROLAND G. CURTIN, M.D.

IT is not my desire or intention to go into a discussion as to the nature and symptoms of pernicious anæmia, but simply to narrate the history of three cases, which may perhaps assist in throwing light upon the cause of this interesting disease. Dr. J. H. Musser informed me that he intended to read an elaborate paper on the subject of pernicious anæmia, and, as these cases bear upon an obscure point in the disease, I thought it proper to report them at this time.

In the year 1881, Dr. B. F. Baer kindly requested me to meet him in consultation over a case the history of which is as follows:

A. B., 38 years of age, single. She had always been healthy, with the exception of painful menstruation (pain only during the

flow). She continued in her usual health until 1877, at which time she sustained a very great shock, the details of which are now given. Her brother married a woman whose birth, education, and manners unfitted her for association with her husband's relatives. Being never congenial in any respect, the two families became more and more estranged, until finally all intercourse ceased. One day the patient received a postal card which asked her to come and take charge of her brother. She proceeded at once to his humble home, and, entering, passed through the front room. The shutters being closed darkened the room, and she groped her way to the door of the back room and opened it. When near the stairs the wife came down and simply asked her to return to the front room. A shutter was opened, and the wife, throwing a sheet back, exposed the head and upper part of the body of her brother, and suddenly revealed a horrible gash in his neck, reaching from ear to ear. He had committed suicide. She was at the sight paralyzed with fright, horror, and sudden grief. From that time she was never well. Following this she became slightly emaciated and gave evidence of nervous and muscular debility, which gradually increased. One year prior to her death, and about two years after the occurrences of the foregoing narrative, her menses became scanty, but continued regular. From this time she began to run down more rapidly until September (five months before her death), at which time the attention of her friends was attracted by her pallor of skin. She was then treated for malarial anæmia, neurasthenia, etc., by rest-treatment, milk-treatment, iron, quinia, arsenic, etc., but without any material benefit. She became progressively weaker and weaker, so that at the time when I visited her she was scarcely able to leave her bed. The symptoms were as follows. After the least exertion she became prostrated and complained of palpitation of the heart. Her skin was blanched, and had a white, waxy, translucent appearance. The whole body seemed rather puffy, but there was no pitting on pressure; conjunctiva, lips, gums, ears, etc., were apparently bloodless; her pulse was large, weak, and compressible; it was not accelerated while she remained quiet.

There was a marked systolic basic murmur transmitted into all the larger blood-vessels. It could be heard, being very plain to the left of the vertebræ, down to the end of the aorta. There was a marked venous hum in the jugulars. Little or no fever was noticed, so far as I could learn; she had no hemorrhage from any part; she had occasionally some vomiting, but no more than could be accounted for by the impaired digestion caused by the impoverished blood, which could not supply good gastric juice; her bowels were never disturbed, except during the time when she was under milk-treatment,

taking large quantities of milk which she was unable to digest, when it was passed off as curdy stools; the blood was not examined; the urine contained no albumen or tube-casts; neither the spleen nor the lymphatic glands were enlarged. Death occurred from exhaustion within a short time after I saw her,—viz., four years and two months after the great shock itself.

This case seemed to point so directly to severe mental shock as a cause of the earlier symptoms of ill health that I was deeply impressed.

Shortly afterwards, on the 14th of May, 1881, a patient suffering from pernicious anæmia presented herself at the Medical Dispensary of the University Hospital. From her I gleaned the following history:

Previous to four years before her first visit she had been a stout, robust girl. At that time (four years ago) she and her widowed mother were living a quiet, happy life, supported by an only brother, who was a conductor on the Philadelphia, Wilmington and Baltimore Railroad. One day they received a despatch that he had been injured on the railroad, and that he was in Chester. The patient went down by the next train, and when she landed on the platform asked an employé where she could find her brother. He coolly informed her that she had passed his body on its way to Philadelphia. She immediately fainted, and continued to faint for some days afterwards. This was followed by great nervous prostration, which continued for three years. She then began slowly to grow pale and weak; these symptoms progressed steadily until the time when I saw her. She was then so pale that her skin, conjunctiva, and mucous membrane were apparently bloodless; feet and legs were inclined to be puffy; the slightest exertion caused palpitation and dyspnoea, so much so that she was scarcely able to walk; her appetite was poor, and she was almost unable to eat anything, and when she partook of a moderate meal of simple food the stomach refused to digest it, as shown by regurgitation of the food (no vomiting or retching), and also by laxity of the bowels. For the six weeks previous to her visit she had been growing rapidly worse; she had lost no blood from any part; menses regular, but very scanty, and accompanied by considerable pain in the sacral region. There was a soft systolic murmur over the mitral area and at the base of the heart, transmitted into the aorta, carotids, and subclavian arteries. She returned on the 21st of April (one week later), feeling a little more comfortable so far as her digestion was concerned. She was not able to return after this visit to the Dispensary, and I heard a month later that she was rapidly failing and near death's door. There

was no examination of the blood; the urine was examined and found to contain no albumen or tube-casts; neither the spleen nor the lymphatic glands were enlarged.

Some time later, Dr. John H. Musser informed me that he had a well-marked case of pernicious anæmia. I asked him to inquire whether there had been any mental shock previous to the symptoms of the disease. He found that such had been the case, and kindly furnished me with the notes, which I will now read here.

Mrs. M., aged 42, five years previous to death sustained a terrific shock, on account of an attempt by her husband to murder her. This was followed by violent nervous excitement, verging on insanity, succeeded by gradual failure of health and by anæmia.

A comparison of these cases shows that the patients were in their usual health at the time when they received shocks, and in the first two cases the cause was profound grief, and in the last case the fear of being murdered,—both severe and depressing emotions suddenly presented to the victims. Intense excitement followed the violence of the shocks, and then came a period of ill health, shown by nervous prostration and debility of the muscular system, progressively and slowly increasing. In the first case this period lasted about three and one-half years; in the second case, about the same length of time; in the last case, four years.

Then followed the anæmic period, in which the patients grew rapidly worse. In the first case the anæmic period lasted about six months; in the second case, about five months; in the third case, one year.

It will be seen in these cases that the anæmic symptoms came on at such a late period afterwards that shock as a cause might easily be overlooked.

I think we can draw one conclusion from a study of these cases, and that is, that in some, if not all, cases *the disease is of nervous origin*.

How these changes are produced I am not able to say. In Addison's disease a fatal chronic blood-disease is associated, as many think, with disease of the sympathetic system. Perhaps the first effect of the shock is on the cerebro-spinal system, and later upon the sympathetic system, in some way modifying the nutrition of the blood.

I have seen in all six cases of pernicious

anæmia. Case No. 1 was the fourth which I had seen; Case No. 2 was the fifth case under my observation. In both these cases the disease followed shock. The sixth and last case I saw with my friend Dr. R. H. Hamill: in this case pregnancy seemed to be the exciting cause.

Prof. Gusserow, in the years 1868, 1869, 1870, and 1871, saw five cases of anæmia without any structural lesion in pregnant females, in which cases the delivery took place at the eighth month, and death soon followed in spite of the best therapeutic measures. In reading the above it occurred to me that perhaps in these cases the despondent mental condition consequent upon pregnancy, or the shame, anxiety, and remorse caused by the carrying of an illegitimate child, may have operated in producing this disease, for in private practice it would seem to be rare, and yet Dr. Gusserow in the short period of four years had under his care five cases.

In the *British Medical Journal* of August 23, 1873, a case is reported illustrating how acute anæmia may be caused by fright. I will read the history as reported in that journal:

An interesting case presented itself at St. Bartholomew's Hospital in the person of a young woman, æt. 20, pallid, bleached, not menstruating, and with the typical aspect of an anæmic female. She stated that ten weeks previously she was in perfect health, had a good color, and menstruated regularly. At that time a fire had broken out in a house adjoining that in which she lived, and she had been exceedingly alarmed. Since then her menses had ceased and she had assumed her present appearance. There can be no doubt that anæmia is too frequently regarded and treated as the result of a constant blood-defect, the consequence of a chemically-altered circulating fluid. Such cases direct attention to a deeper and more significant pathogeny for some forms of anæmia,—an altered condition of the nervous system.

Here we have a case of anæmia produced by fright followed by recovery. In the cases which I have reported the anæmia came on years after the shock. Perhaps the more serious changes in the nervous system are the result of the continued agency of depressing emotions.

Since the above observations I have read several cases of pernicious anæmia following nervous shock.

Mackenzie, in an article on the subject in the *London Lancet* (March, 1879), in

speaking of the causes, says, "Mental shock or emotion has been shown in several cases to be the starting-point of the disease. Thus, in a case related by Sir H. Marsh, a young lady accidentally poisoned her father by giving the wrong medicine. She was so overwhelmed by grief that she took to her bed, became anæmic, and died. In another instance a young man saw a child run over in the street. He was very much shocked at the occurrence, and never felt well from that date. He became progressively anæmic and weak until death, when nothing abnormal was found in his body except a bloodless condition of the viscera. In another case a young lad died of extreme anæmia in Guy's Hospital under Sir William Gull. He had never been well since he had been attacked by a sheep in a field."

22 SOUTH EIGHTEENTH STREET.

NOTES OF HOSPITAL PRACTICE.

NEW YORK HOSPITAL.

SERVICE OF GEORGE L. PEABODY, M.D.

DIAGNOSIS OF THORACIC DISEASE.

GENTLEMEN,—The hospital record states that this woman is 18 years of age. She has no malarial, rheumatic, or nephritic history. She entered the hospital two days ago. She began to menstruate when fourteen. In March, 1884, she was delivered of a child at the eighth month, the child living four days. Premature delivery was brought on by a fall down stairs. Four weeks ago she was delivered of a child at full term. Instruments were resorted to during delivery, resulting in a complete laceration of her perineum. After this she seems to have made a tardy recovery until three days ago, when she complained of having cold hands and feet and a hot head, pain in the right side, with slight cough and insignificant expectoration. She vomited once.

In calling your attention to this patient I wish to have you think of the serious diseases which may complicate one another, and which it is difficult to treat at the same time,—diseases which must be separated radically in our therapeutics.

This woman is very anæmic and weak. There is complete rupture of the perineum, which we must now entirely ignore because

of a complication which is at present of much more serious import. The history points to a lesion in the right pleural cavity, the exact nature of which it is difficult to tell. In addition to the history already given, I may say that the temperature on her admission was 103° F., the respiration 40 in the minute, and the pulse 128. During the first night here she was rendered fairly comfortable by the administration of a single grain of opium. She was put upon fluid diet, and given a disinfectant douche by vagina, to be repeated morning and night regularly. The day after admission the temperature had fallen to 100° , the respiration to 30, and the pulse to 120. But the pulse was of such a weak character that it seemed advisable to give a stimulant. From that time until this she has received an ounce of whiskey three times a day in milk. Her diet has been composed almost entirely of milk, but of that she takes an ample quantity (seventy-seven ounces daily) to keep her in very good condition indefinitely. Anæmia is very marked, and she has been given tonic doses of quinine, iron, and strychnine in pill form. In addition to that, she has had a cough-mixture containing a very small amount of morphia and a larger amount of cyanide of potassium. She is somewhat relieved of the cough, but still complains a great deal of pain in the right pleural cavity and of feeling very weak and restless. The pain in the right pleural cavity has been somewhat relieved by poultices.

As to the physical signs, you observe that distinct dullness begins to be apparent at the angle of the scapula, and lower down passes into flatness until we reach the lower border of the right lung. In the axillary region there is also dullness, gradually merging into flatness as we percuss downward. Auscultation over the dull area reveals respiratory and voice sounds rather high-pitched, but neither the respiration nor the voice sound is distinctly bronchial. This patient is one of a large class, therefore, in which the physical signs alone are not absolutely distinctive of the lesion present. There might be here a consolidation of lung-tissue, a croupous pneumonia with a copious exudation of fibrin such as to obscure the ordinary auscultatory signs of pneumonia. But against that supposition is the fact that the patient had no distinct chill, that the expectoration has not been distinctly pneumonic, and also that

the temperature has been rather low for pneumonia, 103° being the maximum temperature, and this only temporary and probably caused in part by the excitement of conveyance to the hospital.

This is one of those cases in which nothing will decide positively whether there is pulmonary consolidation or exudation of fluid except the exploratory puncture; and I propose to resort to that procedure to-day in your presence, employing the hypodermic needle. The reason why exploratory puncture has not been resorted to before is that, whatever the condition found might be, the treatment would not have been altered in the least during the few days that she has been here, and the patient's weak condition has been such as to contra-indicate any unnecessary interference. But, as I have told you before, I have never seen any harm result from puncture with the disinfected needle, and so far as pain to the patient is concerned, this may be overcome by deadening the sensibility by the use of rhigolene, or in a less degree by the application of ice to the surface where it is proposed to insert the needle. Rhigolene is of great value where we resort to the large needle, which would cause considerable pain.

I proceed now to puncture posteriorly in the eighth intercostal space, and we find that the hypodermic needle brings away from the pleural cavity what seems to be a drop or two of serum stained with blood, but a microscopic examination will be necessary to determine positively its characteristics, and that shall be immediately attended to. The fact that we find no considerable quantity of fluid is not materially against the diagnosis of pleurisy, but it suggests that the exudation is of fibrin chiefly. In leaving the patient to-day, I wish to ask you to fix in your minds the facts that I have told you regarding her, and to observe her carefully from day to day as you visit the wards, and note the various steps in her progress. I present her to you as a case of pleurisy with ruptured perineum. After she recovers from her pleurisy I propose to get her into a good general condition, and then transfer her to the surgical wards for the relief of her surgical complication.

EXOPHTHALMIC GOITRE.

This woman, 55 years of age, a native of the United States, was admitted to the

hospital yesterday. Both of her parents died of consumption, and her mother also had rheumatism. Ten years ago the patient had inflammatory rheumatism, and shortly after the first attack she had a second, and since then has had rheumatic pains in the fingers and feet, especially in damp weather. The fingers are slightly enlarged. She has had repeated attacks of sore throat, has always had a cough. She gave birth to one child and had five miscarriages. Five years ago her feet swelled, and since then she has seen specks before the eyes, and there has been ringing in the ears and persistent frontal headache. There is no variation in the amount of the urine or frequency of its passage. The menstrual function had always been normal. The menopause occurred three years ago, since which there has been a leucorrhœal discharge. Three years ago she had an attack of inflammation of the bowels.

For ten years she has been becoming more nervous; has felt pulled down; has lost flesh and strength; has noticed that the heart beats perceptibly on slight exertion. She complains of shortness of breath on exercise, weakness of the eyes (which three years ago began to grow more prominent) and dimness of vision, and at that time the palpitation of the heart was more pronounced. Two years ago she noticed enlargement of the throat, first on the left side and then on the right. The swelling increased, the patient grew hoarse and more nervous, and the cough became more pronounced.

Gentlemen, you see this patient before you who has typical symptoms of rather an unusual disease in this country, and in whom the disease has developed at an unusual period of life. You know that I refer to exophthalmic goitre, Graves' disease, or Basedow's disease. The woman, who is 55 years of age, manifested the first symptoms of the disease three years ago, if we except certain indefinite and not characteristic nervous symptoms which were present earlier. The affection usually appears in women, rarely in men. In this patient the first symptom was with the heart. You may recollect that the three associated phenomena are,—first, a rapid and weak pulse; second, a prominence of the eyeballs; third, an increase in the size of the thyroid gland.

This woman gives none of the usually assigned causes of the trouble in the way

of nervous or mental strain. It seems to have come on quite spontaneously. The symptoms are not such as to throw any light upon the cause of the disease, which you know is quite obscure. It has been supposed by some that the primary cause was in the state of the heart. You can see, without feeling this patient's pulse, that the heart's action is rapid by the movement of the tumor in the neck occasioned by the pulsation in the carotids. As I have said, it has been supposed that the rapidity of the heart's action gave rise to the increased size of the orbital structures and of the thyroid body. But we now know that such is not the case, because there are plenty of instances in which the heart is hypertrophied for years, causing increased rapidity of circulation and increased arterial tension, without there appearing any of the symptoms of Basedow's disease. Again, with regard to the enlargement of the thyroid gland, it has been stated that the cause of the lesion was a change in the sympathetic ganglia of the neck. But patients do not often die of exophthalmic goitre, and but limited opportunities have been given for making autopsies. In some of the few instances in which the sympathetic system has been examined disease has been found, while in others nothing abnormal has been found. It would seem that the disorder of the sympathetic nerve is not a simple one, but complex. In order to increase the rapidity of the heart's action it would be necessary to stimulate the sympathetic, whereas in order to dilate the blood-vessels of the orbits and thyroid it would be necessary to paralyze it. That the enlargement of the thyroid gland, affecting the sympathetic by pressure or by other means, cannot be the cause of all the other symptoms is evident from the fact that enlargement of this gland exists in many people in certain parts of Switzerland and elsewhere without the presence of the cardiac and orbital symptoms. Of course it is out of the question that the change in the orbit is the primary cause of the trouble, because the other symptoms are often present without any projection of the eye.

Commonly, the first symptomatic condition which appears is, as it was in this woman, palpitation of the heart. The patient may be treated for a long time for a cardiac neurosis without our being able

to say for weeks and months what is the nature of the neurosis, until finally the throat and orbital complication become manifest.

As to the possible termination of Graves' disease, ordinarily the patients get well. If they have serious trouble it usually results from some complication, and not from the lesions which this woman presents. If these lesions of themselves should terminate adversely, it would be by dilatation of the left ventricle and all the usual symptoms of cardiac failure,—local and general oedema, marked dyspnoea, etc. But that termination is unusual, and we do not anticipate it here. This patient will either get well or else reach a non-progressive stage of the disease, the symptoms remaining stationary for years, even to old age.

As to the increased rapidity of the heart's action and palpitation, we can do little in the way of direct treatment. Digitalis and convallaria produce but little effect in these cases, so little that we have practically discarded them. Iron of course can be given symptomatically for the anæmia, but it usually is of little benefit. Iodide of potassium has been strongly recommended, and a certain number of recoveries have been apparently traced to it. By far the greater number of cases have been benefited by treatment directed against the lesion in the sympathetic by the application of the constant electrical current to the sympathetic of the neck on both sides, employing from ten to twenty cells. A certain number of cases so treated have been reported cured. The presence of syphilitic infection in our patient may be inferred by you from certain facts in regard to her pregnancies and abortions; but no definite history of the disease has been obtained.

This woman has been put upon iodide of potassium, and if after a time she does not begin to improve the iodide will be stopped and electricity tried. She manifests in the face, as do many patients, anxiety and a nervous condition, and she complains of moral and mental troubles.

One of the physical signs which I neglected to mention was a murmur over the thyroid gland frequently present. In this case the loud sound proceeding from the carotids in the immediate neighborhood obscures the venous hum.

Before coming into the hospital the patient had used Fowler's solution. This remedy has been nearly entirely abandoned. It may be of benefit for the anæmic condition, but it has very little, if any, effect upon the graver manifestations of the disease.

PLEURISY WITH BLOODY EFFUSION.

Our third patient is an Italian, whose history is somewhat incomplete because of our want of familiarity with his language. He is 55 years of age, and was admitted a week ago, when he told us, as well as he was able, that he was in perfect health up to three weeks previously. His illness during the three weeks had consisted in pain in the left side of the chest, with a slight cough. On admission he was very pale, very anæmic, and he was suffering somewhat with dyspnoea. The temperature was 104.8°, the pulse 104, and the respirations 34. The physical signs were very similar to those of the first patient seen by you to-day. There was absolute flatness over the entire left side of the chest below, at the apex good resonance, and between the apex and angle of the scapula dulness, partial or complete, merging into flatness below. He had and still has exaggerated voice and respiratory sounds, with râles over the upper part of the lung. But in this case, the lesion being on the left side of the chest, we had another guide in the diagnosis which left no doubt that there was fluid in the pleural cavity. That was, in addition to flatness, total absence of voice and breathing, displacement of the heart. The heart is under the sternum, a little below the line of the nipple.

The pleural cavity was aspirated, and about fifty ounces of a fluid composed apparently of about sixty per cent. of blood was withdrawn. The operation gave the patient some relief: the respiration was less frequent, the fever diminished from 101° to 99°, and the man felt more comfortable. The tapping was repeated two days ago, twenty ounces of a similar fluid being withdrawn. Each time the withdrawal of the fluid was discontinued on the commencement of an obstinate cough.

As to the cause of this effusion I am quite in doubt. It may possibly be indicative of tubercular disease, but, so far as we can learn, the man has no tubercular history. It may be a hemorrhage from a

malignant tumor, which also may be in part cause of the dulness, or it may be due to rupture of small blood-vessels which had formed in adhesions, the result of a previously-existing pleurisy. You know that the blood-vessels which form in adhesions the result of pleuritic inflammation have thin walls, which are liable to rupture with the occurrence of renewed acute pleurisy. At all events, the patient has been benefited by the aspirations, and, inasmuch as the physical signs now show a reaccumulation of the fluid, I propose to repeat the operation before you. It must be remembered that in withdrawing this fluid, which contains a large proportion of blood, it is not as if we took that amount of blood directly from the circulation. The blood in his pleural cavity is a foreign body, and would not be likely to be reabsorbed.

You may remember that at my last lecture you were shown a young man who had had a hemorrhagic pleuritic effusion following pericarditis, which in turn had followed rheumatism. This effusion had been removed, as in this man, and the patient was last week able to be about the wards. He went out for two days, and had return of pleuritic pain and slight fever, from which, however, he has again recovered.

CHRONIC PLEURISY IN WHICH REPEATED ASPIRATION WAS FOLLOWED BY TUBERCULOSIS.

You may also remember the case of a young Italian whose chest was tapped in your presence a number of times, each operation withdrawing clear serum, the tapping being soon followed by a reaccumulation of the fluid. Besides being feverish, the patient was emaciated, and more recently cerebral symptoms—coma and optical changes—were present, and death ensued. There was no cough, no expectoration. From the general condition of the patient, tubercle was suspected, and an opportunity was afforded for examination of the fundi oculorum by the oculist, by whom no tubercles were found. At the autopsy we found general miliary tuberculosis, affecting both lungs, the peritoneum, liver, kidneys, and the brain. There was, however, no bronchitis and no dry pleurisy, so that the usual physical signs were absent.

PNEUMONIA.

Here is a man who had the usual physical and rational signs of croupous pneumo-

nia, who has been making a rapid recovery with no other treatment than a liberal supply of food and a cough-mixture when the cough was most troublesome, and a little opium to quiet pain. For coexisting acute rheumatism of the ankle oil of wintergreen was given.

ANÆMIA.

You may remember two patients who were suffering from anæmia to whom we administered iron as a tonic, and to one, along with the iron, oxygen inhalations. They both improved, but the one who received oxygen along with the iron improved the more rapidly. Both patients, having recovered, have left the hospital.

CIRRHOSIS OF THE LIVER.

Before parting with you to-day, I wish to show you another patient whom you all remember. This man entered the hospital a few days ago, very cyanotic, weak, unable to take or retain any large amount of fluid food or any solid food at all. He had been constantly vomiting. He was deeply jaundiced, and his condition was very different from that which you see to-day. I do not show him to you to-day to illustrate the triumph of therapeutics, but to illustrate how a man in his condition will improve if removed from excitement and disturbing influences and his food regulated. He was then suffering from the usual symptoms, you remember, of advanced cirrhosis and from acute duodenitis and gastritis, both of which latter conditions have subsided. That the general anasarca is not so great as it was is due partly to persistent purging. We have not removed the cirrhosis; we have not materially altered the condition of the liver; but we have placed him in the way of recovery from two acute complicating affections, gastritis and duodenitis. I invite your attention to him that you may note the change in his condition from day to day.

TRANSLATIONS.

RESULTS OF OPERATIVE TREATMENT FOR EPITHELIOMA.—Dr. C. Partsch, in a recent work entitled "Das Carcinom und seine operative Behandlung. Nach den in der königl. chirurg. Klinik zu Breslau gesammelten Erfahrung (1875—

1882)" (review, *Centralblatt für Chirurgie*), gives the results of his experience with epitheliomata in his surgical clinic, especially with the view of showing what changes in results treatment has accomplished in the last few years, since antiseptics have been used in their removal. His tables so far give the results of cases of carcinoma of the lip and external genitals operated upon between 1875 and 1882.

This work represents but a small portion of what the author has in contemplation: that is, the analysis of 570 cases of cancer of all parts of the body, operated upon between 1875 and 1882, and the condition of these patients at the end of March, 1884.

Cancer of the lip was observed in 98 cases; 88 were men, and 10 were women, more than the usual percentage of female cases. In only 2 cases did it occur in the upper lip.

The average age of these patients when they presented themselves at the clinic was 57.3 years, and most of them had suffered a year or longer; 22 patients had suffered but half a year. Half of the entire number had infected glands when they came under treatment.

The disease began in most cases between the 50th and 55th year, more seldom between 60 and 80, and only twice between 25 and 30 years.

Seventy-three per cent. of the men were exposed by their occupations to "wind and weather." Thiersch has also observed the disease to arise frequently under such circumstances.

Tobacco-smoking had but little influence in its production. In 12.2 per cent. of the cases it certainly arose from an injury to the lip. Many times the cancer was preceded by a suppurating wound. One patient had his lip wounded in the extraction of a tooth; this was immediately followed by a cancerous tumor, which had to be removed eight weeks later, but in spite of the early operation he soon succumbed to a return of the disease.

In some cases operation was refused, as the base of the mouth and the root of the tongue had become involved.

Four died soon after the operation; 8.3 per cent. later, from intercurrent diseases; and 32.2 per cent. from a return of the cancer. Metastasis into the in-

ternal organs was not observed. The first return generally occurred between one and two years. If this was removed, it generally returned again in a few months; a third operation was usually immediately followed by a reappearance of the cancer.

In March, 1884, 4 of these patients were living with a secondary cancer; death had occurred in 28 cases, in the average period of 17.1 months after the first operation. Some of these patients had had a second operation performed, and they died 13.6 months, on the average, after the last operation. The average duration of life after the first appearance of the cancer was 3.72 years.

There were living without any return of the disease 35.4 per cent.; 5 were still sick, as the removal had been followed by an extensive plastic operation. Six patients had remained free from disease between five and six years, and 8 patients were still without return, though from seven to nine years had elapsed since the operation. On the average, 29 per cent. of those operated upon had remained free from the disease more than three years, and 10.4 per cent. between one and two years. We only speak of a cure when three years have passed since the operation. In 4 cases the glandular involvement began only between two and two and a half years.

The prognosis in extirpation of the lip for cancer is moderately favorable, except where there is infiltration of the jaws or of the glands, especially so when a secondary operation is the one under consideration.

From the study of the clinical history of these cases the author finds that the period of lymphatic involvement depends more upon the character of the original growth than upon its duration.

The history in 4 other cases is worthy of mention. In 2 the disease invaded the lower jaw, filled the alveolar canal, and pressed upon the mental and alveolar nerves. The other 2 cases had remained free from disease for eight and ten years after operation before a new malignant growth appeared.

Cancer of the Penis was observed in 21 cases, nearly always between 40 and 60 years, once only between 20 and 30 years. Twice there was a congenital phimosis, and three times the disease was of traumatic origin.

Most of the growths sprang from the sulcus coronarius glandis, a few from the præputium. One case of direct infection from the prepuce to the contiguous head of the penis by a sort of vaccination is noted. Most of the cases presenting themselves were of long standing, and many of them had glandular involvement.

In one case a great thickening of the dorsal lymphatics could be readily perceived.

In some cases where there was decided glandular involvement a simple amputation of the penis without extirpating the glands sufficed for a cure; the glands decreased in size and did not afterwards become carcinomatous.

Amputation was performed as soon as the head of the penis became involved: the compression of the vessels was trusted during the operation to the fingers of an assistant; the hemorrhage from the corpora cavernosa was controlled by deep stitches after the mucous membrane of the urethra had been stitched to the skin.

Two patients died from the operation, one from blood-poisoning; 17.6 per cent. remained healed at the time of making the report. Some cases had a return of the disease after an immunity of from two and a half to three years. The secondary operations were usually unsuccessful. Nine cases in which the disease returned died, on an average, in 13.2 months, from inanition, hemorrhage, etc.

Carcinoma of the Vulva was observed in 9 cases, the average age being 47.1 years; one patient was only 27 years old. In 3 cases it had existed for one year; in one case a small nodule had been present for eight years. The disease appeared mostly on the inner side of the labia majora, and on the posterior commissure.

Two cases were past operative procedure; one patient operated upon is now free from disease for three years; two died from recurrence, and one from some intercurrent disease. The author warns against the use of iodoform in patients who use stimulants to excess.

AGRAPHIA.—In one of his more recent lectures M. Charcot defines agraphia as "aphasia of the hand." It would be difficult to find a definition more concise or more expressive. Speech and writing have

a close connection: they are, in fact, the two means by which man communicates most readily his thoughts. Both are acquired by study and are perfected by education. It is reasonable to infer that aphasia and agraphia are functional cerebral troubles of the same nature occurring in different locations. The disturbance of expression by writing has been to some extent neglected to make way for the investigation of the more prominent disturbance of loss of speech.

The word agraphia was introduced into science by Dr. W. Ogle in 1867, in a contribution to the St. George's Hospital Reports. M. Pitres, in a recent article, after a study of the symptoms, concludes:

1. That direct analogies exist between the physiological mechanisms which preside over the formation of speech and of writing. Great resemblances exist also among the pathological disturbances which are able to cause interference with these functions.

2. We distinguish three forms of agraphia, corresponding with the three grades of aphasia: (a) agraphia (verbal blindness) in which the patient could not copy after a model, but could still write from his head or under dictation; (b) agraphia (word-deafness) in which the patient could not write after dictation, though he might show signs of intelligence or write after a model; (c) agraphia of the motive power, or *graphoplegie*, in which the patient could not write at all.

3. Each one of these forms of agraphia may be observed individually with patients whose intelligence is sound and whose power of motion is otherwise unimpaired. The existence of the agraphia of verbal blindness and of verbal deafness has been established by several very precise observations; lesions of agraphia of the motive power solely are more rare.

4. In the majority of pathological cases agraphia is associated with hemiplegia or aphasia. In these complex cases the different symptoms which are found united in the same patient may be considered as contemporaneous, and not as subordinate the one to the other. The complexity of the semeiology in each particular case depends entirely upon the variable topography and extent and greater or less gravity of the cerebral lesions. — *Revue de Médecine*, November, 1884.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, APRIL 4, 1885.

EDITORIAL.

DISLOCATIONS OF THE TARSUS.

IN the last issue of this journal two cases of sub-astragaloid dislocation of the tarsus were reported, the chief point of interest being the great rarity of this form of injury. By a remarkable coincidence, the *Cincinnati Lancet and Clinic* issued upon the same date with the *Times* (March 21) contains a communication in which the clinical history of a case of identical nature is given by Dr. T. H. Stewart, of Bradford, in this State. In this account the writer also alludes to the unusual character of the dislocation, and states that he did not know but that he might be warranted in saying that his case was one without a parallel, and that most certainly it was as far as his own experience and examination of authorities went.

It was a case of compound dislocation of the tarsus in a man, in which the tibia, fibula, and astragalus were forced through the skin, the sole of the foot being turned almost upward. (The condition is that represented in the illustration on page 449, except that the foot was dislocated outward instead of inward.) The result, however, was quite different from the hospital cases, the surgeon succeeding in reducing the dislocation and in saving the foot, and, what is most remarkable, although the accident happened eighteen years ago, the patient regained and still preserves the use of the ankle-joint and walks without any lameness whatever. The case is the more interesting from the fact that the patient was Mr. Archer, who is the inventor of the "Archer Gynæcological and Dental Chair." The accident happened near the patient's home in the

oil region, near Petroleum Centre, owing to a fall from a carriage.

Making due acknowledgment of the skill and judgment of the attendant, which deserve the highest praise, we would also call attention to several important practical lessons suggested by this group of cases. It must be admitted, however, that the hospital cases were not only of lower type of vitality, but that they also suffered with other lesions than the dislocation, to which the fatal results are fairly attributable.

DIPHTHERIA AND THE TREATMENT AS AFFECTED BY VIEWS AS TO ITS NON-SPECIFIC CHARACTER.

THE doctrine of the identity of croup and diphtheria, which has been held by many in England,—especially since the publication of the report of the Committee of the Royal Medical and Chirurgical Society,—has not been universally and unreservedly accepted either in Europe or in this country. Recently it has encountered very positive and determined opposition from no less an authority than Professor Virchow, who announced, at a meeting of the Berlin Medical Society, his unshaken adhesion to the views which he has long held of the pathological dissimilarity of the two diseases. The term croup, originally a clinical phrase applied to a prominent symptom of laryngeal affections, was by Rokitansky first used in a pathological sense and extended so as to include all visceral inflammations characterized by fibrinous exudation. Virchow claims in effect that there is a diphtheritic croup and a croup that is not diphtheritic. The former is known clinically as diphtheria, the latter simply as croup or pseudo-membranous croup. He does not admit that all cases of fibrinous laryngitis and tracheitis are due to diphtherial poisoning, and he exhibited preparations in which there could not be found the slightest evi-

dence of diphtheria. Inasmuch as the invasion of the mucous membrane by the low organisms which accompany diphtherial poisoning invariably leads to destruction of the mucous membrane, which is not the case in croup, he believes that the recognition of this anatomical difference in the diagnosis between croup and diphtheria is of great practical importance in considering the question of prognosis after tracheotomy.

After a careful review of the arguments pro and con, especially with the light thrown upon the question by the studies of Wood and Formad, it would seem that the conclusion of the whole matter is that diphtheria possesses characteristics which entitle it to be considered as a distinct variety of morbid process, rather than those which would constitute it a distinct species of disease. In this sense diphtheria is not a specific disease, but a variety of fibrinous inflammation in which the tissues affected are so reduced in vitality that they are readily invaded by micrococci, which in turn may communicate the disease in different degrees of intensity according to the activity of the poison and the susceptibility of its host. As pointed out by Wood, therefore, all grades of malignancy may be discovered, and corresponding degrees of contagiousness, between simple croupous exudation and virulent cases of diphtheria.

As to the causation of this contagious variety of croupous inflammation, it appears that under certain circumstances (*e.g.*, exposure to exhalations from mixed animal and vegetable decaying matters) the poison is capable of being developed *de novo*; and that it is also directly communicable by direct inoculation as well as by contagion from person to person, or by means of fomites.

As it has been proved by many sad clinical illustrations that diphtheria may be conveyed by the breath of the patient, this would appear an all-sufficient argument

for the diligent use of disinfectant and antiseptic applications to the false membrane by the brush, douche, or spray, with the view of destroying its infecting power.

In a brief but valuable communication to the *Practitioner* (January, 1885), Dr. C. J. Renshaw strongly recommends local treatment, and especially strong solutions of permanganate of potassium or of hypochlorous acid, for this purpose. By experimentation upon animals he believes that he has succeeded in demonstrating conclusively that a difference exists between diphtheria and membranous croup, and also between diphtheria and scarlatina.

Diphtheria, he maintains and supports by argument and experiment, is a disease of itself, of a highly dangerous character; it is contagious and arises from contagion, and also from the inhalation of emanations from mixed organic matter in a state of decomposition under certain circumstances, although there is little, if any, evidence to show that it is caused by sewage simply, or by animal or vegetable decomposition by themselves. Science has a great power over it, both as regards prevention and treatment, the principles of therapeutics being to sustain the strength of the patient by nourishment frequently given and to combat the development of the diphtheritic poison by every means in our power, among which stand pre-eminent the free use of stimulants and the local application of germicide agents to the affected surface.

THE INDEX MEDICUS.—A communication has been issued by the editors, stating that Mr. George S. Davis, of Detroit, has undertaken to publish the *Index Medicus* on the same general plan as it has been hitherto. The first issue will contain the references to the literature of January, February, and March, after which it will appear monthly, as heretofore. It is to be hoped that the profession will sustain the editors and publishers in this great undertaking, the value and importance of which we need not dilate upon.

NOTES FROM SPECIAL CORRESPONDENTS.

LONDON.

THE relations of the heart as a muscle are not as well known as are those of its valvular apparatus. As a pump for lifting the blood out of the venous lacunæ and forcing it into the arterial system with its elastic walls, we know pretty well its functions; and not only that, but changes in the valves, with their consequences, are now familiar matters to us. We know what takes place when a valve is altered by disease; but do we always feel clear about what may have preceded the valvular lesion? We know that in a typical case of mitral stenosis the left ventricle is small and the arterial system is imperfectly filled. But when mitral stenosis is set up in a gouty heart the condition of affairs is widely different. Here there has been for long a well-filled artery and a large left ventricle; indeed, the blood-pressure within the arteries has been high, and the left ventricle has had considerable resistance to overcome on systole. It contracts with increased vigor by dint of its hypertrophy, and thus there is strain put upon the mitral valve-curtains, and this leads in time to valvulitis, which may take the direction of insufficiency or stenosis. If the latter, what occurs? There is an already-existing state of affairs upon which the new departure exercises but little effect. The murmur is localized and unmistakable, and the patient's wind is impaired. There is no moral doubt about the existence of a lesion, but there follows no transformation-scene. The hard arteries do not grow soft again. The hypertrophied left ventricle does not perceptibly waste. The pre-existing associations are there and cannot be obliterated. The valve-lesion appears on the scene not as the primary departure from a normal state of affairs, but as a later outcome of long pathological process, and as such it must be regarded.

It is all very well to lay down in text-books typical cases concluding with a post-mortem examination to verify the diagnosis, but this is not heart-disease as seen in life in very many instances. Where an acute endocardial storm has passed over the serous surfaces of the valves and lighted up a growth of connective-tissue corpuscles, whose subsequent contraction leads to distortion of the valve-curtains, then a primary injury is inflicted which carries with it a long train of consequences. Here we may fairly look upon the valvulitis as the *fons et origo malis*. Muscular changes follow, and the muscular chamber behind the lesion enlarges, while its wall thickens, either to arrest a back-flowing current or overcome some obstruction, as a narrowed orifice. How is this brought about? We are so accustomed to speak of compensa-

tory hypertrophy that we run some risk of regarding the heart as possessing something like intelligence and acting rationally. Of course we do not mean anything of the kind. The heart is a pulsatile sac swinging in some exquisite nerve-balances, which enable it to accommodate itself to many circumstances. But fundamentally it is a pulsatile sac: when it is full a contraction follows; after this it fills again. The hollow muscle has got a presiding nerve-centre to rule it. A sensory nerve-fibril running over the inner surface records a sense of distention when the chamber is full, and an efferent message is sent out which causes the muscle to contract. If the sense of distention be acute, the resultant contraction will be energetic, just as we get palpitation on effort. This is the basal idea to grasp in attempting to consider the changes that go on in the heart-wall, about which much misconception exists. If half a dozen men were asked, Does the heart become dilated in systole or diastole? two of them at least will say "in systole." Yet how can a muscular fibril be stretched in the act of contraction? It must take place in diastole and be due to overdistention. If the muscular chamber do not empty itself completely on systole, a certain portion of blood is remaining in it when the in-coming current wells in. If the force of the in-coming current be normal, a certain hyperdistention of the chamber will result, and then one of two things occurs. If the sense of distention produce an energetic contraction, the sac will be emptied. If the contraction be insufficient for this end, a certain amount of blood remains over for the next systole, and so on until a condition of dilatation of the sac supervenes. The trophic nerves run with the motor nerve-fibrils. The efferent message which tells the muscle to contract is accompanied by another message, —viz., one for the arteries supplying the muscle to dilate and so carry a richer blood-supply to the muscle contracting energetically. The development of the blacksmith's arm and of the ballet-dancer's leg is thus brought about. The efferent motor message carries with it a means of enabling the muscle to keep up its energy, and the result of this is that the muscle enlarges or becomes hypertrophied. The primary departure is a condition of distention, and whether hypertrophy will be the result, or dilatation, or a blend of the two, is a matter of nutrition. When the heart-muscle is softened, as when there has been myocarditis along with endocarditis and pericarditis, even though the general condition be one of asthenia, the in-coming current is sufficient to produce dilatation of the left ventricle. (The energy of the in-coming current is influenced by some other force than that of the right ventricle, and is sufficient to overdistend the left ventricle, so that a condition of dilatation is set up.) And this will happen unless the demand upon the heart be reduced

to the minimum, and the ventricle encouraged to contract by some cardiac tonic and well fed with sustaining blood. Such is the practical lesson reflection upon the subject teaches us. In conditions of asthenia and insufficient nutrition the heart-wall will yield sometimes within a reasonable time. Some eighteen years ago such a case came under my notice in a hale, elderly woman, who sat up day and night nursing her husband, who died of acute phthisis. After the funeral she presented herself with a dilated heart and dropsy in her legs. She was compelled to take to her bed, and under rest (lessened demand) and appropriate measures (producing more vigorous ventricular contraction) her heart soon recovered itself, and she was once more a vigorous old woman, doing field-work for years afterwards. Here the ventricle yielded under excessive demand upon it. Indeed, insufficient sleep produces an asthenic condition of the heart-wall presenting the features familiar to us in fatty degeneration, and readily often assumed to be that structural change: only in time the heart recovers, which demonstrates that structural decay was not existent.

A very interesting relation of this matter is how far dilatation of the heart is linked with a high arterial tension. We know that hypertrophy of the heart is often set up by a state of high arterial tension without any valvular lesion, the increased obstruction to be overcome being the high blood-pressure in the arteries. If the ventricle can properly empty itself and its nutrition is maintained, then it undergoes hypertrophy. Such is the hypertrophy of the gouty heart,—in other words, the large ventricle of chronic Bright's disease.

We are all familiar with the tight artery, the large left ventricle, the loud aortic second sound, the large bulk of pale urine, of the complex heart and kidney changes where the blood is laden with excrementitious nitrogenized matter. There is increased arterial tension to be contended with, and the ventricle hypertrophies; but not always with simple hypertrophy. If the nutrition of the heart-muscle is good, there never is measurable dilatation. But when not perfect, then a certain yielding of the wall follows, and there is a blending of dilatation and hypertrophy as a result. Specially does this blend occur in women. And thus we see that while simple hypertrophy occurs with the tight artery in men, in women the tight artery is usually accompanied by a ventricle enlarged by hypertrophy and dilatation both. If we recognize that the initial condition or starting-point of hypertrophy and dilatation is distention and the result a question of nutrition, we experience no difficulty in understanding how we may have every possible proportion of hypertrophy and dilatation coexistent according to circumstances. If the distention be quickly developed, some dilatation is unavoidable.

Yet the nutrition is equal to building up hypertrophy later on in the dilated wall, as constantly occurs after myocardial softening, where, though restoration of the chamber to its normal size is beyond the powers of the system, it still can build up hypertrophy in the dilated heart.

The longer a condition of dilatation has existed, the less probable is the return to the normal state; yet Fuller states that he has seen dilatation disappear after a four years' course of iron. Following out this line of thought, we can understand how dilatation may be of an acute character, and how it may disappear after a time under favorable circumstances.

Do altered conditions of arterial tension ever lead to acute dilatation of the heart? We know that the left ventricle is acutely distended in angina pectoris vaso-motoria. Does the ventricle ever yield in its inability to contract in the face of the increased obstruction to be overcome? We know it does when the attack is fatal, for the heart is found distended; the ventricle has become so overdistended as to be unable to contract in the face of high arterial tension to be overcome,—i.e., if it is to contract at all. The heart has failed in diastole.

Are there cases where, in the face of a sustained high arterial tension with distinct attacks of angina vaso-motoria at intervals, the ventricle yields to the point of acute dilatation without being actually brought to a standstill? Such a case came under notice lately in the North of England. That there was dilatation in the left ventricle was a matter patent to a tyro. But what were the circumstances under which the dilatation had occurred or was brought about? That was the question to be solved. The case had been seen by competent medical men, who attributed the condition to changes in the coronary vessels. All readers of Niemeyer know what he says about the yielding and dilatation which goes on in an hypertrophied heart when the coronary vessels are no longer equal to the full nutrition of the big heart and tissue-decay sets in. It had been assumed that such was the morbid condition, and the gloomiest prognosis had been given. To my mind there was a rapidity of development which militated against this view and favored that of yielding of the wall before a high blood-pressure in the arteries. The question was, Could the case be accounted for without the coronary vessels being blocked? To my mind it could. Of course, if there was an atheromatous growth occluding partially one or both coronary arteries the outlet was as dark as it well could be. But in the ten months during which the condition of dilatation had been known to exist surely the occlusion would have been complete and the case run its course. Had this been the case? Then, again, if there was ossification of the

coronary arteries as the pathological departure, would there not be some hardening of the arteries elsewhere? of which there was no evidence. My experience in the Pathological Institute of Vienna taught me that such change in the coronary vessels was part of a general, wide-spread change. Certainly at times the change was most marked in the coronary vessels, but it was not confined to them. An atheromatous tubercle may occlude the mouth of a coronary artery, but it is of comparatively rapid growth. Where fatty degeneration of the heart occurs without general atheroma, it is due to occlusion of one of the coronary arteries by pressure upon it, as an adherent pericardium along its course.

Taking the case altogether, the hypothesis of coronary occlusion did not seem to me to fit in with the facts exactly. There were still imperfect attacks of angina; and if the heart-wall was decaying, one or other must surely have brought the heart to a stand-still. Whether or not the coronary circulation was impeded, the line of treatment to be taken seemed plain and clear. The patient was confined to his couch, and while there felt well; but any effort soon revealed the cardiac weakness. The other features of the case were a flatulent condition of the bowels, a coated tongue, sediment in the urine, and a duskiess of the features often found when there is a good deal of excrementitious matter in the blood. There was a condition of the liver present where, instead of the proteids brought to it by the portal vein being elaborated into the serum-albumen of the liquor sanguinis, they were being degraded into urates. (Such a condition of malnutrition with production of urates is common enough.) And this was the cause both of the impure blood and of the imperfect nutrition of the heart-wall.

It was clear that in order to relieve the ventricle the arterial tension must be kept as low as possible by depurating the blood. To clean the blood was not only to lessen the work of the heart, but to avoid attacks of angina, which were the cause of danger immediately threatening life. It was as important to lower the blood-pressure as to avoid making demands upon the heart by effort. Some mercurial with a purgative would sweep the waste matter out of the blood and lower the arterial tension. Some turpentine stupes would relieve the flatulence. A pill of strychnia, digitalis, and compound galbanum pills, which would strengthen the heart and give tone to the intestines, was indicated. Such was the immediate treatment which suggested itself. It may be said that *Prunus Virginiana*, *Convallaria majalis*, and digitalis had been previously tried, and each had done some good. But beyond such medicinal treatment lay a very important matter,—viz., the feeding of the weak ventricle. For such end it

would be necessary to feed the patient on such albuminoids as the liver could deal with. It has been no uncommon experience with me in such cases, when the liver is out of gear and is breaking down the proteids into urates or bile-acids, to find a certain amount of loss of flesh, because the tissues are not fed properly. To reduce the amount of the albuminoid elements in the food so as to lessen the work of the liver has been one step; and when the inefficient liver has but little to do, it can do it well. Also to give the albuminoid matters in such form as experience has shown makes least waste-products,—namely, as fish and as farinaceous substances. By working on this line and clearing out the liver, and cleansing the blood by mercurial purgatives, such patients usually make headway; and such a regimen was recommended.

Whether such a combination of tactics will succeed or not remains to be seen. If the case should improve, it will be a species of lesson in cardiac therapeutics which will teach us much, and its progress will be carefully watched. The cases of break-down of the heart due to high blood-pressure in the arteries which have been recognized are few; but as our knowledge of the subject advances the recognition will become increasingly frequent, and then it will be possible to say what the prognosis of such cases is. Of course there will ever remain the disturbing factor of the condition of the coronary vessels, which cannot be ascertained positively, and which can only reveal itself in the subsequent results. But I venture to think that it is not necessary in all cases to assume that obstruction in the coronary circulation is the cause of the break-down of the heart-wall, carrying with it, as it does and must do, such a hopeless prognosis.

We know now what is the state of affairs in angina vaso-motoria, and we can see, as through a glass darkly, some effects of a sustained high blood-pressure in the arteries upon the heart-wall other than the hypertrophy with which of recent years we have become familiar. The whole subject is one of deep interest, not only from this point of view, but also from that of the causal relations of acute dilatation of the heart. This is undoubtedly produced in the left ventricle by effort at times, as well as in the right, which is an every-day affair; and rest is essential to the recovery of the heart-wall, which takes place in time, though, maybe, sometimes only after a considerable period has elapsed.

In another case, seen some years ago, acute dilatation of the left ventricle followed upon a cold bath, where contraction of the cutaneous arterioles suddenly raised the blood-pressure and persisted for a considerable time; yet it yielded at last to active measures, and carried its owner through an attack of hemiplegia, and held on well till he died of cancer of the liver. So there was not much to say against its repair. Acute dilatation of the left ven-

tricle and the circumstances under which it arises is a subject on which we now know enough to incite us to wish to know more.

J. MILNER FOTHERGILL, M.D.

CHICAGO.

THE third annual commencement exercises of the College of Physicians and Surgeons of this city took place at the Grand Opera-House on the afternoon of the 10th instant. At this college there were one hundred and seventy-one matriculants, sixty-nine of whom were candidates for diplomas. For a young school, this institution appears to be holding its own notwithstanding the sharp competition, and it is believed to be firm against the temptation—always present to a new school under such circumstances—of increasing its following by winking at questionable ways and means. In the evening, following the commencement exercises, a banquet was given at the Sherman House, the Cook County Commissioners being the honored guests of the faculty. This school has met with a serious loss in the retirement of Prof. R. L. Rea, the very able and popular teacher of anatomy and surgery.

Homœopathy flourishes here, and members of this ism, with few exceptions, thrive and wax fat. The two great schools of the system (?) have recently graduated large classes. The total number of graduates from all schools of medicine in this city will probably exceed that of last or any preceding year. Hard times appears to increase the number of aspirants for medical honors.

Dr. Murphy is a member of the medical staff of the County Hospital. Dr. Newman is also a member of the staff, representing homœopathy. A patient having a compound fracture of the leg was admitted to the service of Dr. Newman, who amputated the limb. Dr. Murphy criticised the operation as being unnecessary. This serious charge can hardly pass unnoticed, and will likely receive the attention of the Hospital Committee. It is an illustration of the foolishness of trying to mix oil with water.

Dr. Eggleston Burrows has resigned the position of one of the attending physicians at the Home of the Friendless, his medical adviser urging him to a change of climate.

Our Health Commissioner is making elaborate preparations for thoroughly cleansing the city, and promises that by May 15 he will have transformed Chicago from one of the least tidy to a position among the most cleanly cities. M.

March 16, 1885.

SYNCOPE AND THE MEANS OF AVERTING IT.
—Dr. William J. Notley writes to the *Lancet* that in cases of syncope due to deficient cardiac action the application of heat to the head will prevent the access or revive the patient.

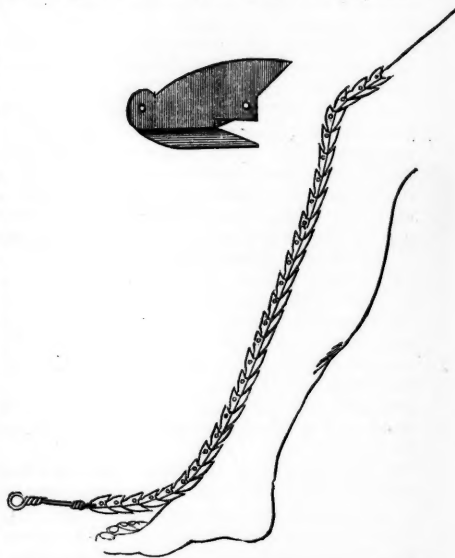
PROCEEDINGS OF SOCIETIES.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

A STATED meeting was held January 7, 1885, the President, Dr. J. M. DA COSTA, in the chair.

Dr. WILLIAM BARTON HOPKINS exhibited an apparatus designed to facilitate the removal of fixed dressings.

It consists, as shown in the accompanying cut, of a vertebrated chain constructed of brass, and so formed that when it is placed upon a part prior to the application of a fixed dressing it will, on withdrawal as soon as the dressing has set, leave behind it in the latter a hollow longitudinal ridge. This may be readily divided by a few strokes of a rasp at any time it is desired to remove the dressing, and, a clean, straight cut being thus made, the splint will be in suit-



able condition to reapply if necessary. As applied to the part, the chain presents the form of an inverted T, and, although the upright portion stands half an inch high, it increases the circumference of the limb only one-eighth of an inch, and does not affect the proper tension of the dressing.

When a hinge in the splint is required, two chains are applied,—the ridge formed by the one in front being cut, while that behind makes the joint. If the chain has to travel over a very convex curve, it should be wrapped in wax-paper, in order to bridge over the spaces between the widely-separated spines.

Dr. J. H. MUSSER presented for T. M. LIVINGSTONE, M.D., of Columbia, Pennsylvania,

AN ENORMOUS GALL-STONE.

The stone was removed at the autopsy of a female, aged 66 years, who died of colloid cancer of the omentum. The carcinoma was recognized during life, but the presence of the gall-stone was not suspected. In addition to the malignant disease of the omentum, secondary growths were seen in the bile-ducts. One nodule completely occluded the common duct. The gall-bladder was firmly contracted around the stone, which is exhibited to-night, and a small fistula at the fundus communicated with its cavity and that of the peritoneum.

A full report of the case by Dr. Livingstone may be found in the *Lancaster Practitioner* for December, 1884.

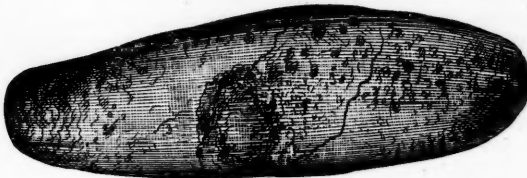
The stone weighs 394 grains (or 25.6 grms.), and is three and one-third inches (or 8.5 cm.) long. The largest circumference measures 7.9 cm. The small end, corresponding to the cystic duct, measured 5 cm. in circumference; the large end, 7.1 cm.

It is elongated cylindrical in shape, tapered at each end. The end of the stone correspond-

dissecting-room of the University of Pennsylvania. The pathological character of the specimen will alone be of interest, as all facts pertaining to a personal or clinical history of the individual were unobtainable.

The vertebræ, before my attention was directed to them, had been macerated and boiled, destroying thereby all evidence of the nature of the inflammatory process that caused such extensive synostosis.

In referring to the specimen, it will be noticed that the vertebral column is held in a rigid position by a deposit of calcareous plastic material that extends from the fifth dorsal to the sacrum. In the dorsal region, to the right of the anterior common ligament, a broad ribbon-like band of the deposit covers the bodies of the lower seven vertebræ. The same fusion exists to the left of the median line, between the seventh and ninth dorsal. It is here interrupted by an intervertebral interspace, to again appear between the eleventh and twelfth dorsal and the first and second lumbar. The smooth, plastic character



Natural size. Weight, 394 grs.

ing to the neck of the gall-bladder shows the greatest reduction in its circumference, as seen by the measurement, and evidently extended into the cystic duct, as one-half inch from the point it is slightly curved. In the middle of the stone an abrasion, so to speak (not due to handling), is seen, the size of a five-cent piece. It shows three or four laminae of the stone. Both ends of the stone are rough, the body quite smooth. If possible, a section will be made to determine the character of the nucleus. The accompanying clear photograph, by Dr. G. A. Piersol, is presented to show the outline of the stone should sections be made. Dr. Livingstone sends the stone to be deposited in the Mütter Museum.

January 7, 1885.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, FEBRUARY 26, 1885.

The President, Dr. SHAKESPEARE, in the chair.

Synostosis of the vertebral column. Presented by A. SYDNEY ROBERTS, M.D.

THIS specimen of synostosis or calcareous fusion of the dorsal and lumbar vertebræ was removed from the body of an aged man that had been sent from the Almshouse to the



of the effusion is materially altered in the lumbar region, especially noticeable between the bodies of the first, second, and third. It is here thickened and nodular, with occasional

bony stalactites, markedly contrasting with the smooth, ribbon-like band of the mid-dorsal.

The vertebral laminæ frequently coalesce, especially noticeable between the fourth and fifth lumbar and in the lower dorsal region. The cretaceous deposit has occurred in the structure of the intrinsic ligaments of the spine, or those short, firm bands that bind the approximating surfaces of the vertebræ together. Between the fourth and fifth lumbar and the attachment of the latter to the sacrum the ligamentous structures are all involved by the deposit, firmly cementing the superincumbent column to the sacrum.

The articulating facets of the vertebræ, with but few exceptions, show evidences of chalky deposit (their margins are nodular and "frilled"). Between the tenth, eleventh, and twelfth dorsal the articulating facets are obliterated by ankylosis. The same fusion exists between the facets of all the lumbar vertebræ. The extremities of the lower dorsal spinous processes and the last two laminæ are united by ossification of the supra-spinous ligament.

Corresponding with this anomalous condition of the vertebral column and its articulating facets, a similar process may be noted to have occurred at the sacro-iliac juncture. The margins of the articulating plane are here encrusted by calcareous nodules. About the margins of the articulating surfaces for the heads and tubercles of the ribs, the same chalky concretions have been deposited.

With the view of determining the nature of these plastic effusions, and in lieu of the evidence that would have established the etiology of the affection had a careful autopsy been held, I examined portions of the deposit with the nitric acid and ammonia test, with the hope of detecting the presence of uric acid. The results were negative. A crystalline structure could not be detected by microscopical examination. The mass appeared amorphous, yielding bubbles by the addition of acetic acid. It was no doubt largely composed of the carbonate and other salts of lime.

I think it may be inferred that the individual from whom these vertebræ were removed had been afflicted with chronic rheumatic arthritis, as the specimen at least shows the characteristic deposits of the disease.

A case of cyst of the broad ligament was presented by Dr. C. M. WILSON.

Spondylitis of the dorsal vertebræ with miliary tuberculosis of the lungs. Presented by A. SYDNEY ROBERTS, M.D., for Dr. WILLIAM G. PORTER.

Frederick H., a gunsmith, æt. 23, a native of Berne, Switzerland, was admitted into the surgical wards of the Philadelphia Hospital, under the care of my colleague, Dr. Porter,

on January 9, 1885. He complained of general malaise, great prostration after slight exertion, and a sharp paroxysmal pain over region of sternum and about the right shoulder-blade. He had always enjoyed excellent health. His parents were living and healthy. He was a moderate drinker, and without any venereal taint.

During the latter part of August, 1884, five months before admission to the hospital, he commenced losing flesh without apparent cause. The symptom of pain soon followed, located over the ensiform appendix, and a month later he was incapacitated from work by extreme weakness. Upon date of entry a marked angular-kypnos was noticed in the mid-dorsal region of the spine. Pain was now constant in anterior portion of chest and greatly exaggerated by motion. Vertebral column was rigid, normal curves obliterated by spasm of erector-spinae muscles.

One week after admission an elastic swelling appeared below the inferior angle of the right scapula; rapidly losing its circumscribed character, it spread in all directions. A month later it covered the entire posterior half of the trunk, from the spine of the scapula to the belly of the quadratus lumborum, its anterior margin being defined by a perpendicular line corresponding to the pectoral fold of the axilla.

I first saw the patient February 13 (one week prior to his death). He had a rapid, small pulse, shallow respiration, dry, parched skin, and a temperature of 101°. The abscess had so covered the hump that it could only be detected by deep pressure. He grew rapidly weaker. Morning temperature ranged between 99° and 100°, with an evening rise to 100°, 101°, and 102°; it did not vary from this range until two days before death; it then fell to normal (98°) and remained there. He died on February 20, 1885.

Dr. Shakespeare has presented the following report of the post-mortem:

Autopsy.—A large fluctuating abscess was noticed externally, covering the posterior portion of the trunk, extending along the spinal column from the third cervical vertebra to the first lumbar; skin covering area of distention discolored and mottled. Upon cutting into sac of abscess about one gallon of greenish, stinking, semi-purulent fluid escaped. Dorsal muscles in region of hump dissected away by the burrowing of pus, and in the main destroyed. The scapula had likewise been separated from the trunk by the sac of abscess pushing under its inferior angle.

Destruction of tissue marked on right side of column. The spinous processes of the dorsal vertebræ were freely movable at apex of kypnos in all directions.

Thorax, from within showed firm pleuritic adhesions in each cavity, more extensive on right side. Lobes firmly bound together;

one or two small normal areas at apex of upper lobes; lung-tissue mainly crepitant throughout; cut surface exhibits cavities in upper lobe; the remainder of lung-tissue of each lobe studded with gray tubercle. Left lung is in a similar condition, with extensive congestion. Bronchial glands not enlarged. Heart and pericardium normal. Liver small, color red, appearance of cut surface normal; numerous diaphragmatic adhesions; capsule thickened irregularly. Gall-bladder normal. Spleen flabby; numerous adhesions to diaphragm, with evidence of peritonitis; dark maroon in color, slightly mottled; pulp soft, size normal. Kidneys slightly enlarged; capsule readily stripped, leaving a pinkish-gray surface, with some injection of vessels between the pyramids of Ferrein; cut surface shows cortex thicker than normal; medullary portion pink in color.

Vertebral Column.—The sac of the abscess within the thorax occupied the region of the mediastinum. It covered the bodies of all the vertebræ from the second to tenth dorsal. The anterior common ligament was destroyed and the vertebræ were eroded; caries had also eaten away the greater portion of the bodies of the seventh and eighth dorsal. The heads of the ribs articulating upon these vertebræ were loose in the sac of the abscess.

PHILADELPHIA CLINICAL SOCIETY.

STATED MEETING, FEBRUARY 27, 1885.

The President, EDWARD E. MONTGOMERY, M.D., in the chair.

DR. MONTGOMERY reported several cases of

ABDOMINAL SURGERY.

Cases 1, 3, 4 were done under antiseptic precautions, 6 and 7 without. He objected to the spray, on the ground that it increases the peril of the patient by the prolonged chilling of the peritoneum, by absorption of a deleterious agent, and by the increased organic matter washed into the wound from the impure air of the room.

RETINITIS ALBUMINURICA.

Dr. L. BREWER HALL presented the following case.

Mrs. S. applied to the Philadelphia Dispensary, February 17, 1885, seeking relief for a rapidly-increasing loss of vision. She had always had excellent health, has given birth to five children, and is now pregnant for the sixth time. Thinks she is now in the eighth month. At present she feels perfectly well, complaining only that her eyesight has failed rapidly during the past few weeks. Had no aches nor pains anywhere; appetite good. Her vision upon entering the Dispensary was R. = $\frac{1}{80}$, L. = $\frac{1}{80}$. Read Jaeger with difficulty. The exterior of the eye appeared perfectly healthy. The ophthalmoscope, however, revealed the existence of retinitis, and that peculiar form characteristic of kidney-disease, *retinitis albuminurica*. The urine, upon examination on the 18th instant, showed a moderate amount of albumen (one-fifth to one-sixth bulk), with a few large granular tube-casts mingled with much squamous epithelium, confirming the diagnosis made upon the appearances in the eye.

Dr. MONTGOMERY questioned the importance of the induction of premature labor.

Dr. HALL, in reply, said, "That would depend on the amount of inflammation and the stage of the pregnancy. This deposit of fat in the retina is generally absorbed rapidly. Exudation of lymph into the retina

No. of Patient.	Age. Years.	Disease.	Operation.	Hospital or Private Practice.	Date.	Result.	Remarks.
1	28	Ovarian tumor. Left ovary.	Ovariectomy.	Hospital.	May 17, 1879.	Recovery.	Right ovary contained two small cysts. Since been pregnant.
2	35	Cancer of uterus and rectum.	Colotomy.	Hospital.	April 28, 1880.	Recovery.	Survived one year. Was able to attend to herself and had no discomfort.
3*	53	Multiple fibroid.	Hysterectomy.	Hospital.	May 5, 1880.	Death.	Fifty-three hours. Peritonitis and exhaustion. Tumor weighed 12 pounds, partly calcified. Aorta atheromatous.
4*	46	Fibroid.	Hysterectomy.	Hospital.	March 17, 1882.	Death.	Shock, 2½ hours. Ureters dilated, kidneys sacculated. Tumor weighed 13 pounds.
5	46	Epithelioma of larynx and oesophagus.	Gastrostomy.	Private practice.	Dec. 17, 1882.	Death.	On fourth day beginning of peritonitis. Had been supported three weeks on injections.
6	17	Menstrual epilepsy.	Oophorectomy.	Hospital.	Sept. 13, 1884.	Recovery.	Convulsions less severe. An interval of three months between epileptic attacks.
7	30	Cyst of broad ligament.	Laparotomy.	Private practice.	Oct. 9, 1884.	Recovery.	Cyst was enucleated, and the right ovary removed.

* Colored.

near the disk is not so rapidly taken up. If the disk is being choked rapidly, the induction of premature labor should be considered. In this case the patches are diminishing, and the inflammation seems to be subsiding, so there is no indication to induce premature labor."

(March 1 the patient was delivered of a stillborn foetus, and there was a marked improvement in her eyesight immediately.)

MARY WILLITS, M.D.,
Reporting Secretary.

NEW YORK PATHOLOGICAL SOCIETY.

A STATED meeting was held February 25, 1885, JOHN A. WYETH, M.D., President, in the chair.

Dr. JACOBI presented in behalf of a candidate a specimen of round-celled sarcoma of the mesentery, with secondary involvement of the kidney, removed from the body of a girl six years of age.

OLD GUNSHOT-WOUND OF THE CHEST.

Dr. PAGE presented a man who was wounded in the left shoulder during the civil war, the ball passing in a direction from behind forward and downward. The ball became lodged, but where was unknown. There were no pulmonary symptoms until comparatively recently, when the patient suddenly spat up a quantity of blood and suffered at times from an irritating cough. Careful physical examination revealed the signs of a local pulmonary inflammation situated a little to one side of the median line and about four inches below the clavicle, and believed to be due to the bullet, which had probably become recently displaced from the capsule by which it had been surrounded. Dr. Page quoted a few other cases in which a bullet remained in the lung without exciting pulmonary symptoms for a number of years.

Dr. SHRADY, in reply to a question by the President, said that most or all cases of uncomplicated penetrating wound of the chest which he saw during the war recovered. If clothing were carried in with the bullet the chances were less favorable.

The PRESIDENT knew of no case of penetrating wound of the chest with fracture of the rib to recover.

PRIMARY CARCINOMA OF THE BLADDER.

Dr. PORTER presented a specimen of supposed primary carcinoma of the bladder, with secondary involvement of the ureter and kidney, removed from the body of a man who had been operated upon for stricture of the urethra, and later had passed urine containing pus.

PYELONEPHROSIS.

Dr. PORTER also presented a part of the genito-urinary tract removed from the body of a woman who had suffered from symptoms of cystitis, later of intermittent fever, and,

finally, of peritonitis. The urine contained a large quantity of albumen and a variety of casts. The patient died within a few hours after admission to the hospital. The lesions at autopsy illustrated local pelvic peritonitis and pyelonephrosis.

SUPPURATING GANGRENOUS ORCHITIS.

Dr. PORTER also presented another series of specimens illustrating disease of the genito-urinary organs. Before admission to the hospital the patient had been catheterized, being a sufferer from an enlarged prostate. Shortly after the catheterization his symptoms grew worse, and he died with sloughing epididymitis and orchitis.

HYDROCEPHALUS IN THE ADULT.

Dr. T. M. PRUDDEN exhibited the brain of an Italian, who five weeks before admission to the hospital began to suffer from headache, which after a time was accompanied by stupor, alternating with delirium; finally, coma and death. There had been a well-marked alcoholic history. At the autopsy nothing apparently abnormal in the brain, excepting dilatation of the lateral ventricles, which contained from four to six ounces of fluid. Cases of dilatation of the ventricles it was known did sometimes occur in adults without evident cause, and he believed that a positive diagnosis could not usually be based upon the clinical symptoms. In the present case it was thought the patient was suffering from a cerebral tumor, probably pressing upon the cerebellum, but the diagnosis was not confirmed at the autopsy. There was well-marked broncho-pneumonia.

In connection with this case Dr. Prudden also presented the brains of two hydrocephalic children,—in the first death taking place at the twenty-eighth day of age, and there being also a spina bifida. In that instance the central cerebral cavity occupied about half of the entire cranial vault. In the second the child died at the ninth year, and the enlargement of the cranium had been more gradual.

Dr. Prudden referred to the importance of removing the hydrocephalic brain under water, the ventricles distended with fluid, and hardening in the form which existed during life.

Dr. JACOBI had seen but a single case of congenital cranio-tabes. As a rule, it did not appear until the child was three or four years old.

Dr. W. P. NORTHRUP had seen only the present case of congenital cranio-tabes.

CANCER DUE TO THE LONG-CONTINUED IRRITATION OF AN ULCER.

Dr. GEORGE F. SHRADY presented a specimen which illustrated a question raised at the last meeting, that of malignant disease being caused by long-continued irritation. In the present case the man had some years ago sustained a burn on the face, neck, and chest,

all of the wounds healing with the exception of two small ones on the chest, which finally took on malignant character. Only one side of the ulcerating surface exhibited malignant structure under the microscope.

HYDROSALPINX AND UTERINE FIBROIDS.

Dr. H. J. BOLDT presented the specimens, which were removed after the patient's death. She had suffered from uterine symptoms believed to be due to a polypus which was removed, and subsequently, when an examination was being made for diagnostic purposes, the patient died of chloroform-anæsthesia. There had been no apparent heart-lesion, but the autopsy showed a certain amount of fatty degeneration, particularly in the left ventricle. Dr. Boldt had been in the habit of giving chloroform for diagnostic purposes, but he would not do so any more.

Dr. NORTHRUP said some physicians who were acquainted with the dangers of chloroform made a custom of commencing anæsthesia with chloroform and continuing with ether. He asked if this was not as dangerous as to continue the use of chloroform throughout.

The PRESIDENT thought it was better to give chloroform alone than afterwards to substitute ether. On two occasions, some years ago, he tried one of the mixtures which were then being used for anæsthetic purposes, and in both instances the patients came nearly dying. The use of chloroform as a general anæsthetic should be condemned most severely, except perhaps in children under twelve years of age.

Dr. PORTER said Dr. Lusk had written a paper calling attention to the dangers of chloroform even in labor.

The PRESIDENT had heard of a case of death from chloroform-anæsthetization during labor.

OVARIAN CYST.

Dr. H. MARION SIMS presented a cyst of the ovary, removed recently for severe pelvic symptoms, the patient making a perfect recovery and being entirely relieved of pain.

Dr. Sims also presented a similar specimen removed from another patient, with like results.

CARCINOMA OF THE OVARY.

Dr. NORTHRUP presented a specimen of carcinoma of the ovary, the chief interest of which consisted in the peculiar gross appearance of the mass.

SPINDLE-CELLED SARCOMA OF THE BRAIN.

Dr. FRANK FERGUSON presented a very large tumor of the brain in a man about 30 years of age, a German, and a sailor by occupation. Two years previous to his death he was said to have been taken suddenly with paralysis of the right side. He only partially recovered. A few weeks before death he had severe headache, with pain in the right

parietal region. Shortly before admission to the hospital he became suddenly unconscious. The temperature just before death was 105°. At the autopsy a spindle-celled sarcoma, weighing four and a half ounces, measuring nine inches in its greatest circumference and three in its smallest, was found in the left parietal region, apparently having its origin in the dura mater. The ganglia at the base of the brain on that side were destroyed to a considerable extent.

SARCOMA OF THE SPINAL CORD.

Dr. FERGUSON also presented a portion of the spinal cord to which a tumor about the size of an almond was attached, cystic, containing the microscopical structure of spindle-celled sarcoma, and apparently developed from the pia mater, giving rise to the symptoms of myelitis with ascending and descending degeneration. The cord had not yet been examined under the microscope.

STATED MEETING, MARCH 11, 1885.

The President, JOHN A. WYETH, M.D., in the chair.

DEATH FROM SUPPURATIVE INFLAMMATION OF THE TUNICA VAGINALIS TESTIS, FOLLOWING REPEATED TAPPING FOR HYDROCELE.

Dr. T. M. PRUDDEN presented the specimens, together with microscopical sections, obtained from the case of a man who had carried a hydrocele for fifteen years. A week before his admission into Bellevue Hospital the hydrocele sac had been tapped, and it was also probably injected. After admission the sac was tapped several times with the hypodermic needle, clear serum being withdrawn. The temperature rose, finally typhoidal symptoms developed, the tunica vaginalis underwent gangrenous inflammation, and the patient died.

A microscopic examination of the walls of the sac and of contained pus was made. The pus contained immense numbers of two kinds of bacteria, — namely, the staphylococcus pyogenes and the streptococcus pyogenes. They were also present in the purulent pellicle which lined the distended sac.

The PRESIDENT, in reply to a question raised by Dr. John C. Peters, remarked that a mechanical introduction of cocci was not necessary for their development in abscess. They were present in deep-seated abscesses which had no apparent external communication. He further said that several cases were on record in which death had followed tapping of a simple hydrocele with the hypodermic needle.

HYPERPLASTIC ENLARGEMENT OF THE OVARIES.

Dr. H. C. COE presented a number of ova-

ries removed from different patients, the seat of hyperplastic enlargement, and which, nevertheless, were capable apparently of functioning. He inferred that in a number of instances the diagnosis of useless ovaries was made by the operator rather than by the pathologist. These enlarged ovaries had very much the appearance of so-called fibroid tumors of the ovary, and he had found it difficult to distinguish between them by a microscopic examination. Dr. Coe had sometimes entertained the idea, although he said it might be a fanciful one, that the pain which some patients experienced at menstruation was due to interference with easy rupture of the follicle from thickening of the capsule.

Dr. RIPLEY asked a question with a view to learning whether this change in the ovary could take place without dysmenorrhœa being present.

Dr. COE said that in a number of autopsies enlargement of the ovaries had been found, there having been no history of dysmenorrhœa during life. In reply to a question by Dr. Boldt, he said that enlargement of the ovary was likely to be accompanied by prolapse of the organ unless it had become previously adherent by inflammation.

Dr. W. P. NORTHROP asked if it was considered that menstruation and ovulation were contemporaneous.

Dr. COE thought it was fair to suppose there was some connection between the two processes. Theoretically, he might say that in health the follicle ruptured prior to menstruation, whereas in disease it did so later.

The PRESIDENT thought a death-blow to the argument was to be found in the fact that menstruation sometimes occurs after removal of the ovaries. At the meeting of the Medical Society of the State of Georgia two eminent gynecologists referred to two cases in which the women conceived after removal of the ovaries.

AMPUTATION OF THE HAND FOR INJURY.

Dr. VAN GIESON presented the hand of a patient which had been removed at the St. Catherine's Hospital for inflammation and destruction of bones following an injury due to the striking of a paint-pot upon the metacarpus. The head of the radius and two of the metacarpals had been destroyed by the necrotic process. It was evident from the appearance of the specimen that resection would not have been proper.

SARCOMA OF THE LUNG.

Dr. VAN GIESON presented the lungs of a man who died in St. Catherine's Hospital, having given signs which led his family physician to a diagnosis of tuberculosis, with enlargement of glands of the neck, and later of the axillary glands. Dulness was universal over the right lung, less marked over the left. There was marked prominence of the middle of the sternum. The patient emaciated, and

died of exhaustion ten days after admission. At the post-mortem the lung was found to be sarcomatous, as seen in the specimens. The spleen, the kidney, and the mesenteries were the seat of secondary nodules.

CARCINOMA OF THE PERITONEUM.

Dr. VAN GIESON also exhibited a specimen of carcinoma, with partial colloid degeneration, of the peritoneum, removed from the body of a man who died at 50. The patient had the great toe amputated previously in Bellevue Hospital, by Dr. Markoe, for what was believed to be semi-malignant disease. Notwithstanding this fact, the symptoms and physical signs seemed to justify the diagnosis of leucocythæmia which was made. There was an immense abdominal tumor, commencing in the region of the spleen, extending across the abdomen and downward to near the supra-pubic region, smooth on the surface, and which could be lifted under the integument. The patient was very anæmic, and under the microscope the blood seemed to present an excess of the white corpuscles. The patient had no pain, no nausea. The appetite remained good. The autopsy, however, showed that the diagnosis was entirely erroneous. The disease was extensive malignant degeneration of the peritoneum, the parietal and visceral layers being involved. A portion of the process was colloid. Dr. Van Gieson said that his diagnosis had been based upon the fact that in a number of cases of carcinoma of the peritoneum which he had seen there had been pain, nausea, loss of appetite, emaciation, none of which were present in this case.

He asked Dr. Prudden if so-called colloid cancer of the peritoneum was initially carcinoma, the gelatinous appearance developing later.

Dr. PRUDDEN said this question was not settled in the minds of all pathologists. He thought that in some cases the disease was in the beginning colloid, while in others it began as carcinoma and took on colloid appearances later.

Dr. AMIDON raised the question as to whether in carcinoma of the peritoneum pain did not have some relation to the presence or absence of involvement of the parietal layer of the peritoneum.

Dr. COE said, with regard to the appearance of the blood in leucocythæmia, that in the few cases in which he had made a microscopical examination it was evident at once that leucocythæmia was present.

COLLOID DEGENERATION OF THE OVARY, WITH UTERINE FIBROID.

Dr. JOHN C. PETERS related the history of a negress, about 70 years of age, who had been taking quinine and various medicines for supposed malaria. He first saw her three months prior to death, when there was ascites and some form of pelvic enlargement, uterine

fibroid and cancer having entered into the question of diagnosis. At the autopsy, made by Dr. Frank Ferguson, a fibroid tumor about the size of the fist was found in the body of the uterus, while the right ovary was the seat of colloid degeneration, with secondary nodules in the peritoneum.

GENERAL MILIARY TUBERCULOSIS.

Dr. VAN SANTVOORD presented the lungs of an infant which died at the ninth month of age, general miliary tuberculosis being found at the autopsy. The interest of the specimen was the great extent to which the lungs were involved in the disease in a child so young.

CIRRHOSIS OF THE LIVER AND KIDNEYS.

Dr. W. P. NORTHRUP presented specimens removed from the body of a woman who died at 62 years of age, having been a total abstainer from alcoholic liquors and having been in good general condition. There was a history of Bright's disease a year ago, and at one time the urine contained some sugar. The autopsy revealed great diminution in the size of the liver and kidneys due to cirrhotic process.

Dr. RIPLEY remarked that cirrhosis of the liver might occur without there having been abuse of food or drink and without a syphilitic history. He also remarked that the liver might vary in weight in adults from one pound to five or six pounds without being the seat of disease, and that the organ diminished in size after the fiftieth or sixtieth year.

Dr. FRANK FERGUSON presented sections of the sarcoma of the brain shown at the last meeting, under the microscope, and said that the Microscopical Committee had found the ulcer of the epiglottis and the disease of the metacarpus, presented at a former meeting by Dr. Van Santvoord, to be tubercular.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

STATED MEETING, THURSDAY, MARCH 5, 1885.

The President, B. F. BAER, M.D., in the chair.

DR. WILLIAM GOODELL read a paper entitled

A YEAR'S WORK IN LAPAROTOMY.

During the past year he had had thirty-two laparotomies. Of these, twenty-two were ovariectomies, eight oophorectomies, one hysterectomy, and one exploratory incision.

Of the twenty-two ovariectomies, ten were performed in the hospital of the University of Pennsylvania, with three deaths; seven at his private hospital, with one death. In eleven both ovaries were removed. Seventeen had

adhesions, which in seven were very formidable. Four of the women were over sixty years of age, and of these one died. In not a single instance did he refuse to operate, although three of his patients were very ill at the time of the operation.

The causes of death were as follows: An old lady, aged 63, from whom a tumor weighing sixty-five pounds was removed at the hospital of the University, died suddenly from acute uræmia after doing well for three days. One kidney was found riddled with abscesses, the other was contracted. The second death also occurred at the same hospital, but from peritonitis caused probably by hospitalism. The third and fourth fatal cases were in advanced stages of septicæmia when operated on. Each one had high temperature, frequent pulse, and night-sweats from suppurating cyst. In addition, one was bedridden and had bed-sores. The other had greatly swollen legs, although the tumor was a small one. In each the adhesions were universal and very formidable. The former died from shock fifteen minutes after the operation; the latter lived one week. This was a dermoid cyst, which, in his experience, was liable to have extensive and firm attachments, making removal often difficult and dangerous. Dermoid cysts also are very vulnerable, taking on inflammation on the slightest provocation. In this instance a physician had removed some of the fluid with a hypodermic needle. He (Dr. G.) had had two cases of small cyst in Douglas's pouch in which violent inflammation followed the use of the aspirator. The lives of his patients were for several days in danger, but fortunately they recovered with obliteration of the sac. This should render one cautious about touching a dermoid cyst unless he is prepared to perform the radical operation.

The fifth death occurred in a case forlorn from the outset. Five years ago Dr. Goodell had removed a very large colloid cyst of the left ovary from this woman. A year ago her health began to fail coincidentally with the appearance of another abdominal tumor, and she was rapidly pulled down. On opening the abdomen, Dr. Goodell found that the cyst had burst some time before and that a colloid material had escaped in large quantities into the peritoneal cavity. The degeneration was plainly malignant, as the womb, broad ligament, bladder, and the parietal peritoneum were studded with papillomatous masses. He did not see her again, but her physician, Dr. Bauman, of Telford, wrote that the wound healed perfectly. No special symptoms set in, yet the woman grew weaker and weaker, dying from exhaustion on the sixteenth day after the operation.

The lecturer stated that this was the only case in which he had twice performed ovariectomy upon the same patient; but that he had at present a lady under treatment from

whom four years ago he had removed the left ovary for cystic degeneration, and in whom the right ovary is now enlarging and will need extirpation before long. The liability of the sound ovary becoming diseased amounted in his cases to 1.5 per cent., and this strengthened him in the conviction that in women approaching the climacteric both ovaries should, as a rule with but few exceptions, be removed. The above case made his third one of colloid degeneration in which the sac had burst some time before the operation. In each the disease was evidently malignant. One survived the operation and went home, but died a few weeks later from a reaccumulation of colloid in the abdominal cavity and a sprouting out of a crop of papillomata from the cicatrix in the abdominal wall. In the second one both ovaries were removed, and from great emaciation and weakness the woman became plump and strong. She did well for two years, when a tumor made its appearance in the left broad ligament. A year later she died, after much suffering. From this experience he would look upon colloid cyst with suspicion, and would give a guarded prognosis in respect to ultimate recovery.

With regard to the causation of ovarian cysts, he believed more and more that single life, sterility, and unfruitfulness, whether natural or enforced, were important factors. Thus, out of his twenty-two cases, nine were not married and one was a widow. Again, of the married, one was sterile, one had borne but one child, and three had had only two children.

During the past year he had also performed eight oophorectomies. Three of these operations were demanded for excessive menorrhagia and dysmenorrhœa from multiple fibroids, and two of them died, the difficulties of the operation being great. The other oophorectomies were performed for pernicious menstruation, ovarialgia, and threatened miscarriage, and were successful. In no case did menstruation return, although in one there was a slight show of blood.

Of other laparotomies he had performed two, one of them an exploratory incision in a woman greatly reduced by pain and obstruction of the bowels. Cancer of the pelvic organs was discovered. She died very suddenly from supposed embolism. The other laparotomy was a successful hysterectomy. The tumor weighed thirteen and a half pounds, and consisted of the womb with many large fibroid growths. The adhesions to the abdominal walls, bowels, and omentum presented many difficulties and needed many ligatures. The stump, which was fully four inches in diameter, was encircled by Koeberlé's wire-clamp and treated outside of the peritoneal cavity. The patient recovered slowly and without a bad symptom.

W. H. H. G., *Sec'y.*

REVIEWS AND BOOK NOTICES.

ANNUAL REPORT OF THE SECRETARY OF THE NAVY FOR THE YEAR 1883. In Two Volumes. Vol. II. Washington, 1883; and SANITARY AND STATISTICAL REPORT OF THE SURGEON-GENERAL OF THE NAVY FOR THE YEAR 1882. Washington, 1884.

The Report of the Surgeon-General of the United States Navy for the year 1882 is a valuable addition to medical literature. In glancing over it carelessly one might conclude that it contained too much of statistics to be very interesting to the general practitioner, but the book of over six hundred pages is too full of valuable information to disappoint any but the most exacting. Surgeon-General Wales has proved himself worthy of the honorable position he held, and the Medical Department of the United States Navy will be the gainer for a long time to come by his energy and skill in scientific work and progressive medicine.

The four tabulated reports issued from the Surgeon-General's Office cover fifty-four thousand six hundred and forty-six cases.

Such a system of tabulation as that which has been inaugurated must be able in the course of a few years "to furnish a mass of important facts bearing upon the geographical distribution of disease."

Dr. Wales proposes the co-operation of the medical corps of all the great nations, thus forming a great international organization, to promote the collective investigation of disease.

The Museum of Hygiene is reported as being in a very flourishing condition. Contributions are coming in from every direction, and its present quarters are overfilled. It is proposed to secure, if possible, the Naval Hospital at Washington for a permanent museum building. Should this fail, a suitable one ought to be built for this purpose. Some attempt has been made to provide medical officers with a better supply of journals. Periodicals of a general character, as well as those devoted to special branches of medical science, were furnished to flag-ships, with instructions that they should be circulated among the other vessels of the squadron. The library of the museum contains six thousand volumes, and a catalogue is being prepared.

Of 8703 recruits examined, 3150 were rejected. This is much to be regretted by those who are friends of the navy, and is a good argument for the increase of our excellent system of training-ships to educate boys for the navy. The table showing the number and cause of rejection is very instructive and valuable, as indeed are all the tables furnished. The strength of the force afloat was 10,631. A very interesting chapter, illustrated by a large chart, is that referring to the "in-

fluence of age upon morbidity." Under the head of "Medical Topography and Sanitary Reports" there is much interesting reading, besides valuable professional information.

Surgeon Walton contributes a very interesting account of San Juan de Porto Rico, and a description of the military hospital. To this report is added a description of frambœsia, or yaws, which disease is said to be the scourge of the inhabitants of Dominica. Passed Assistant-Surgeon Arthur has made the subject of the "Organization of the Chilian Army Medical Department" a special report. The Chilians certainly have a good system for their Sanitary Corps, and there are many matters referred to which might be advantageously copied by our own Army Medical Department. A report on the materia medica collection of the United States National Museum closes the volume. We regret that we cannot call attention to much more of this Report. The book is full of entertainment and instruction. The work which Surgeon-General Wales has so faithfully carried on should meet with the strong support of the general profession, which must also share in the great benefits to be derived from it.

W. T. P.

THE ANNUAL REPORT OF THE SURGEON-GENERAL OF THE UNITED STATES ARMY for 1884.

This report in pamphlet form differs very little from its predecessors. Concerning the issuing of artificial limbs and trusses, Dr. Murray calls attention to the hardships of the present laws: "For instance, a soldier ruptured during the war with Mexico, although he may be receiving a pension on account of hernia, is not entitled to receive a truss." It is recommended that the law be so changed as to permit any one who has been injured in the United States service to receive a suitable truss. It is, however, sincerely to be hoped that this recommendation, and any others which may be suggested for the benefit of our veteran invalid soldiers, will be quickly approved and carried out.

The average mean strength of the army is reported at 20,230 white, 2309 colored troops, and 210 Indian scouts. The average number of troops constantly on sick-report during the year was 1003, or 50 per 1000 of mean strength. The total number of deaths reported among white troops was 250, or 12 per 1000 of mean strength; an increase of 2 per 1000 over the rate for the previous year; 778 being from the results of disease, and 72 the results of injuries. The total number of white soldiers discharged for disability was 838. Of these, 726 were for the results of disease, and 112 for the results of wounds and injuries. The total number of deaths among colored troops from all causes was 22, or 10 per 1000. This is the lowest death-rate yet reached among the colored troops since their organization in

the army. Among the white troops diseases of the respiratory organs stand first in numerical importance. Among colored troops the respiratory group stands third, but their death-rate is four times greater in respiratory diseases than for the white troops, "the deaths being wholly from pneumonia." This last statement is particularly interesting and important in view of the fact that the colored troops are more apt to be stationed in malarious districts than the white troops. The colored troops remain longer at frontier stations, it is said, than the more fortunate white troops. Wounds, injuries, and accidents are of first numerical importance among the colored troops and second among the white troops. "The death-rate for injuries was lower for colored troops than for white except in gunshot wounds. The admission-rate for malarial diseases, which in the aggregate constitute 11 per cent. of all diseases and injuries, reported is 10 per 1000 lower than for the previous year. The colored troops present a higher rate than white troops for venereal diseases. On the other hand, their comparative freedom from intemperance continues to be of interest." This subject of intemperance in the army should receive more careful attention. It is not at all likely that the medical reports furnish any adequate idea as to its prevalence or its injury. We commend this subject to the especial attention of the powers that be for improving legislation.

The report considers the rate of occurrence of typhoid fever among white and colored troops. The number of cases reported among the white troops was 214, or 11 per 1000 of mean strength; and 8 cases among the colored troops, equal to 3 per 1000 of mean strength. The deaths among the white troops were 35, and among the colored troops 3. But one man was discharged from service from this cause. "From this it may be concluded that where recovery took place patients usually became fully able to discharge all the duties of a soldier." It is interesting to note that a large proportion of these cases occurred in sections of country where typhoid fever is comparatively rare, and where mountain fever and the mixed typho-malarial fever are quite common. Allowing some possible errors in diagnosis in the army medical corps, the number of cases of true typhoid fever would probably be lessened.

The reports of surgical cases furnish some interesting items. No losses occurring in Indian warfare are reported, the past year being the first for many years not marked by losses to United States troops from Indian hostilities. The great interest at present manifested by the army in rifle-practice has furnished some accidents from gunshot-wounds received at the target-range and also from explosions. There were 9 of these cases of gunshot-wounds, with 3 deaths. There

were 47 injuries received from explosions while loading cartridges. In 24 instances the hand or forearm was injured, in 13 the fingers, in 9 the face, and in 1 the skull, which was penetrated by a piece of brass shell, death resulting from cerebral abscess. In 9 cases the soldiers were permanently disabled, and required discharge from the service for disability.

There were 179 surgical operations performed during the year, 96 consequent upon injuries and 83 for the relief of surgical diseases; 56 were amputations, 3 were cases of trephining for compound fracture of the skull, —1 fatal; the remainder were miscellaneous operations. One case of ligation of the femoral artery, which preceded the intermediary amputation of the hip-joint, was reported.

"Esmarch's method was used only twice, and antiseptics were used five times and twice by spray." This might suggest rather rudimentary methods of procedure. Dry absorbent dressings are very commonly used in our army.

The Army Medical Museum receives very little attention in the report. In the pathological section it is reported that there are at present 9114 specimens; comparative anatomy, 2529; anatomical section, 2236; microscopical section, 8934; miscellaneous section, 735. A list of the contributors follows, and a statement that 13,598 visitors registered at the museum. No mention is made of the work of the gentlemen connected with this museum, who are certainly entitled to great praise. It is deeply regretted that the medical profession of the country cannot derive more benefit from this national collection. Even the simplest catalogue, with some attempt at description, would be of the greatest value to the profession. The efforts of the medical department seem to be entirely reserved for labor in the library, which contains 65,738 volumes and 86,503 pamphlets. The number of civilian physicians using the library is said to be "steadily increasing."

Surgeon Charles Smart, U.S.A., is at present engaged upon the third medical volume of the "Medical and Surgical History of the Rebellion," which "has been delayed by the long illness of Dr. Woodward, lately deceased." It is to be hoped that a fire-proof building for the Army Medical Museum and Library of the Surgeon-General's Office will soon be erected. The claims of hospital stewards have at last received some attention, and it is proposed to increase their pay and require a satisfactory examination for those who desire to occupy that position. It would also be nothing more than ordinary justice to provide them with reasonable protection and respect in their position. The list of dead among the officers of the Medical Corps contains the names of Drs. Crane, Cuyler, and Woodward. Their obituary notices have been carefully prepared. Dr.

Woodward's important labors are well known and highly appreciated by the medical profession, of which he was such a brilliant ornament and diligent worker. The medical portion of the "Medical and Surgical History of the Rebellion" will be for him a fitting monument.

The death of Dr. Cuyler was a heavy loss to the Army Medical Department. Although a retired officer, his influence was felt and his counsels were highly respected by his old associates. Dr. Cuyler was a true friend, a Christian gentleman, and an honorable and able physician. Up to the last moments of his life he preserved his love for his profession, and showed a deeper interest in medical affairs and a more intelligent judgment than many who are in active service to-day. The profession of medicine could ill afford to lose him, and his personal friends and acquaintances were witnesses of his generous, faithful character.

W. T. P.

THE FOURTH ANNUAL REPORT OF THE
STATE BOARD OF HEALTH OF NEW YORK.
Transmitted to the Governor February 21,
1884. Albany, 1884.

The general report of the Board, forming the first part of this valuable report, intelligently treats of the causes and prevention of diphtheria, scarlet fever, measles, typhoid fever, typhus, malarial fever, smallpox, consumption, and general diseases, and briefly recounts the lessons taught by their prevalence during the preceding year in the State limits. Sanitary Districts and Sanitary Investigation, Registration, and Vital Statistics also receive due attention.

Under the heading of "School Hygiene," it is stated that "The glaring defect in the American system has hitherto been the sacrifice of the bodily well-being to the intellectual, forgetting that the end of the modern school should be to favor by all possible means the gradual development of the child from the physical and moral as well as from the mental stand-points." It is well that the Board has placed itself on record in this manner; indeed, the urgent importance of this subject can scarcely be overestimated. The caring for the health of our children is a subject which should interest every parent and citizen. It cannot be too persistently taught that the thrift and wealth of nations are contingent upon the physical well-being of the people.

It is urged that, as a protection against contagious diseases, "children that have been sick with measles, scarlet fever, diphtheria, or smallpox should be required to present a certificate of health from their family-physician, or" (better still) "from the health authorities, before they shall be allowed to return to school." It might be added that medical men should be instructed carefully in this matter, for they are too often deficient in

the technical knowledge required for ordinary protection, and themselves at times are serious offenders.

Stench-nuisances receive some attention, and all who recognize the danger must wish the Board had more authority to suppress them, especially near large centres of population.

This admirable report concludes with a notice of adulteration of food and drugs, which in some directions has reached outrageous limits, and should attract a greater amount of attention from the profession. It is most desirable that stronger penalties be attached to the transgression of the existing laws on this subject. New and better laws are needed.

It is too discouraging to notice the difficulties which the Board has to contend with for the protection of the public health when medical and commercial interests conflict, and where those engaged in paying concerns seem perfectly indifferent to the public health. The members of the Board have done their work well and deserve due credit, and we are glad to observe that it is growing in public esteem and confidence, and consequently in usefulness. The report is made up of special reports of committees and inspectors, full of suggestive facts. Last, but not least, is a report on "Milk and its Adulterations," by Edward W. Martin, which deserves wide circulation.

A very useful table might have been added to the report showing how readily milk absorbs poison from the surrounding atmosphere, and the necessity for some inspection as to the manner of exposing milk during transportation and in the houses where it is kept before selling. Also the water-supply of cows deserves some attention as being a very common cause of disease, especially among children.

W. T. P.

GLEANINGS FROM EXCHANGES.

THE TREATMENT OF ACUTE SUPPURATIVE PERITONITIS BY ABDOMINAL SECTION.—At the meeting of the Royal Medical and Chirurgical Society of March 10 (*Lancet*), Dr. Frederick Treves and Dr. Howard Marsh each reported a case of acute peritonitis treated by abdominal section, followed by recovery of the patient. The first case was that of a woman, 21 years of age, who, while under treatment for pelvic peritonitis following gonorrhœa, suddenly developed symptoms of acute general peritoneal inflammation. This was found to be due to the bursting of an abscess into the cavity of the peritoneum. A large opening was made in the abdomen, with antiseptic precautions, and the appearances of acute pelvic peritonitis discovered. The purulent contents were evacuated, and the whole peritoneal cavity was washed out with many quarts of water and a drain introduced. She made a good recovery, and was out on

the fortieth day. The second case was that of a medical student, 19 years old, with constipation of the bowels, in whom acute peritonitis was also apparently caused by the rupture of a mesenteric abscess, possibly connected with tuberculous glands. In this case free drainage was also secured, and the patient likewise made a complete recovery.

In the general discussion upon these two papers the course of treatment was very favorably considered.

CONVALLAMARIN.—In an article on substitutes for digitalis, Dr. James Stewart speaks favorably of convallaria as a cardiac tonic, and especially commends the glucoside convallamarin as "possessing all the active cardiac properties of the plant, with none of its disadvantages" (such as vomiting and diarrhœa). The dose of the convallamarin is one or two grains: it can be made into a pill with glycerole of tragacanth.—*Canada Medical and Surgical Journal*.

MISCELLANY.

CHOLERA - PREVENTION.—The Sanitary Council of the Mississippi Valley has sent a communication to his Excellency Grover Cleveland, President of the United States, calling attention to the fact that during the seventh annual meeting of the Sanitary Council of the Mississippi Valley, held in the city of New Orleans, March 10 and 11, 1885, the health organizations and commercial and transportation interests of twelve of the Valley States being represented, a special committee was appointed to formulate an expression of the views of the Council concerning the action necessary to be taken by municipalities, States, and the general government with reference to the imminent danger of an invasion of Asiatic cholera during the coming season. The report of this Committee was unanimously adopted by the Council, and it was subsequently

"*Resolved*, That the Executive Committee be, and hereby is, instructed to forward to the President of the United States a copy of so much of the formulated views of the Council as relates to the use of the contingent epidemic fund and the National Board of Health."

In accordance with this instruction we have the honor to submit the following extract from the Report as adopted by the Council:

"The Sanitary Council is gratified to learn that Congress has appropriated a sum of money to be placed in the hands of the President of the United States, to be used in his discretion in aid of State and local Boards of Health in the event of an actual or threatened epidemic of cholera or yellow fever, in preventing the introduction and spread of the same, and in maintaining inspections and quarantine at points of danger. Asiatic chol-

era threatens an incursion into the United States in the near future, and realizing (in the interests of life, health, and commercial and industrial welfare) the vast importance of such preventive measures and adequate preparation for effective quarantine before the advent of foreign pestilences, so that they shall not come upon us defenceless and unprepared, the Sanitary Council respectfully and earnestly petitions the President of the United States to immediately convene the National Board of Health and authorize its use of so much of the epidemic contingent fund as may be necessary for preparing and promptly enforcing a vigorous system of preventive measures in co-operation with and in aid of State and local health organizations, with especial reference to Asiatic cholera.

"It is not believed that any argument on the merits of this request is necessary; but should your Excellency desire such, the Committee will take pleasure in responding to an intimation to that effect."

Signed by Pinckney Thompson (Kentucky State Board of Health), President; Joseph Holt (Louisiana State Board of Health), Vice-President; John H. Rauch (Illinois State Board of Health), Secretary; — *Executive Committee Sanitary Council.*

THE NEW YORK MEDICO-LEGAL SOCIETY.—Mr. Clark Bell, having served two successive terms as the chief presiding officer of the New York Medico-Legal Society, at the January meeting made an address, in which he reviewed the remarkable growth of the Society and its increased usefulness during the past and its bright prospects for the future. Mr. Bell has been an energetic, able, and useful executive officer, and the Society has prospered under his management. He was chiefly instrumental in forming a special library which is now the best single collection in the country of works on medical jurisprudence outside of the Surgeon-General's Office at Washington. The proceedings of the Society are published regularly in the *Medico-Legal Journal*, which is now in its second volume, and is a valuable acquisition to the literature of forensic medicine. Last year the area of usefulness of the Society was increased by altering its constitution so as to admit members from all parts of the United States and the Canadas. Mr. Bell suggests, with reference to lunacy reform, that the Governor of New York shall name a commission to report upon the lunacy laws, recommending such changes as may be needed to suit the exigencies of the times and the needs of the defenceless class who claim our sympathy, care, and protection. The success of the Pennsylvania Commission should be a strong argument in favor of the adoption of this suggestion in New York. Prof. R. O. Doremus, who succeeds Mr. Bell as president, is also a gentleman of distinction and ability. Under his administration the progress and continued prosperity of the Society seem assured.

NOTES AND QUERIES.

THE ACTIVE PRINCIPLE OF ERGOT.

MR. EDITOR,—A short editorial on "Ergot" in the last issue of the *Philadelphia Medical Times* (March 21, 1885) shows that there is quite a diversity of opinion among physicians and clinicians as to what the active principle of the drug may be.

In 1877 and 1878 I made a large number of experiments upon animals to determine the physiological action of sclerotic acid, then claimed by Profs. Dragendorff and M. Podwizotzky as the active principle of ergot.

I will not go into the details of the eighty experiments I made in working out the action of the drug, but simply give my conclusions, which were as follows:

1. Large doses produced increased peristalsis of the intestines, diarrhoea, dilatation of the pupils, hurried breathing, trembling, staggering, and (in some animals) partial paralysis.

2. It produced contractions of the pregnant uterus. Two pregnant rabbits, in the middle of gestation, were made to abort.

3. It slowed the heart by its action on the contained motor ganglia.

It increased the blood-pressure by stimulating the vasomotor centres.

These conclusions indicate that the action of sclerotic acid is almost identical with that of ergot, except that it does not slow the heart through any influence on the pneumogastric, as P. Eberly* claims for ergot.

The ecobolic properties of sclerotic acid were quickly and positively shown in the two rabbits that aborted shortly after the drug had been administered hypodermically, and this, too, in spite of the fact that ergot and all its constituents usually have very slight effects upon rabbits.

The power to produce contraction of involuntary muscles by sclerotic acid was also made manifest by the strong peristalsis of the intestines, the wave-like motion of which could frequently be seen to be so strong as to be transmitted to the abdominal walls.

Prof. Von Holst used sclerotic acid in 0.04 to 0.05 gram doses injected subcutaneously with successful therapeutic results, but my experiments lead me to believe this to be entirely too small a dose, because I gave it in gr. v doses hypodermically to cats, rabbits, pigeons, etc., without producing death. In fact, from gr. i to gr. v were necessary to produce physiological effects. (I obtained the drug in the original packages direct from Merck, of Darmstadt.) Now, gr. v is eight times greater than Von Holst's dose, and is equivalent to 3ss of powdered ergot, if 0.05 gram of sclerotic acid is supposed to be equivalent to 3ss powdered ergot, the recognized therapeutic dose. In fact, the toxic effects of sclerotic acid are very slight, and I doubt if any of the preparations of ergot, except the oil, are capable of producing primary toxic effects upon the circulatory or nervous systems.

My belief is that the crude drug or a good fluid extract are the only forms of ergot upon which we can rely for positive therapeutic effects. The supposed active principles are sure to be unstable, on account of the low formation of their source.

CHAS. M. SELTZER, M.D.,
N.E. cor. Seventeenth and Green Streets, Phila.

OFFICIAL LIST

OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U.S. ARMY FROM MARCH 15, 1885, TO MARCH 28, 1885.

TAYLOR, M. K., MAJOR AND SURGEON.—Granted leave of absence for one month, to take effect about April 15. S. O. 46, Department of Missouri, March 21, 1885.

HAVARD, VALERY, CAPTAIN AND ASSISTANT-SURGEON.—Leave of absence extended one month. S. O. 65, A. G. O., March 21, 1885.

RAYMOND, H. I., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Assigned to duty at Fort Gaston, California, as post surgeon. S. O. 30, Department of California, March 20, 1885.

* Wood's Therapeutics and Materia Med., p. 46r, first ed.